Appendix A

Notice of Preparation

COMMUNITY DEVELOPMENT DEPARTMENT

CITY OF SACRAMENTO
CALIFORNIA

300 RICHARDS BLVD. 3RD FLR
SACRAMENTO, CA
95811-0218

DATE: November 13, 2012

TO: Interested Persons

FROM: Scott Johnson, Associate Planner
Community Development Department

RE: **NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT AND SCOPING MEETING FOR THE SUTTER MEMORIAL SITE PLAN (P12-031)**

COMMENT PERIOD
November 14, 2012 to December 14, 2012

Scoping Meeting: Thursday, December 6, 2012, 6:30 – 8:00 PM
at the Clunie Community Center

INTRODUCTION

The City of Sacramento ("City") is the Lead Agency for preparation of an Environmental Impact Report for the proposed Sutter Memorial Site ("SMS") project. The EIR to be prepared by the City will evaluate potential significant environmental effects of the SMS project at the Sutter Memorial Hospital site. The EIR will provide a project-specific evaluation of the proposed project. Comments and suggestions as to the appropriate scope of analysis in the EIR are invited from all interested parties.

The NOP is available on the City's Community Development Department webpage at:
http://www.cityofsacramento.org/dsd/planning/environmental-review/eirs/

The SMS area is comprised of approximately 19.36± net acres located in the East Sacramento neighborhood of the City of Sacramento. (See Figure 1, Vicinity Map; Figure 2, Project Location Map; and generally, Figure 3, Conceptual Project Site Plan). The project involves demolition of existing hospital structures and clearing of the site, and subsequent construction of a mixed-residential development on the site. The proposed project would result in the construction of up to 125 residential units, and limited commercial uses on the residential mixed use parcel.

The EIR for the SMS is an environmental review document being prepared for the project in

compliance with the California Environmental Quality Act (CEQA). Under CEQA, upon deciding to prepare an EIR, the lead agency must issue a Notice of Preparation (NOP) to inform all responsible agencies of that decision. The purpose of the NOP is to provide information describing the project and its potential environmental effects to enable comments regarding the scope and content of the information to be included in the EIR, and to seek input from responsible agencies as defined by CEQA (California Public Resources Code 21069). Agencies should comment on such information as it relates to their statutory responsibilities in connection with the project.

The SMS project description, location, and environmental issue areas that may be affected by development of the proposed project are set forth below. The EIR will evaluate the potentially significant environmental impacts of the proposed project, on both direct and cumulative basis, and may identify mitigation measures that may be feasible to lessen or avoid such impacts.

PROJECT LOCATION/SETTING

The project site is the property on which Sutter Memorial Hospital and its associated offices and related-care facilities are located. The Hospital was constructed in 1937 and ultimately built out to its current state by 1985. The subject site is bordered by 51st Street and single-family homes and a small multi-family apartment complex to the north, single-family homes to the west, F Street to the south, and single-family homes and a professional and medical offices complex to the east. The project site is composed of Assessor's Parcel Numbers (APN) 004-0010-006 and 024 ("Property") and is within City Council District 3.

PROJECT DESCRIPTION

Stonebridge Properties, LLC, acting as the representative (applicant) for Sutter Health Sacramento Sierra Region ("SHSSR"), is requesting the necessary entitlements to establish a Planned Unit Development ("PUD") to allow for the residential development of the Property.

The proposed PUD will provide for construction of up to a total of 125 residential units within a mixed-residential community. The project proposes a mixture of housing types and lot sizes. The mixture of housing types includes traditional park neighborhood homes, garden homes, row homes, cottage homes, and includes provisions for secondary units. There is also a 0.23 acre (net) residential mixed use parcel that allows for limited neighborhood commercial. (See generally, Figure 3, Conceptual Project Site Plan).

The project identifies several open space areas throughout the site. These areas are accessible through adjacent greenways and sidewalks. The circulation framework for the neighborhood features multiple connections to the surrounding neighborhood, extending several of the existing, adjacent streets into the site, as well as proposing two new ingress/egress points into the property. In addition, street sections have been designed to largely match the width and look of existing roadways in order to blend into the existing neighborhood.

Public water, sanitary sewer and storm drainage utility infrastructure exists within the roadways adjoining the project site and currently provides service to the existing Sutter Memorial Hospital facility. The conversion of the site from hospital to residential use will utilize these facilities. New utility infrastructure would be routed within the new roadway network. The existing public 48" diameter storm drain line that runs across the northeast corner of the property would be relocated to avoid conflicts with new residential parcels.

ENTITLEMENTS

The City approvals/actions that would be considered for the proposed project include, but are not limited to:

- General Plan Amendment [Public/Quasi-Public to Traditional Neighborhood Low (19.36± acres)]
- Rezone 18.56± net acres of H to R-1A (PUD), .23± net acres of H to RMX (PUD), .57± net acres of H to R-3 (PUD)
- Tentative Subdivision Map and associated Subdivision Modifications (as detailed on the Tentative Map)
- PUD Establishment and PUD Schematic Plan

Review of the proposed project by the Preservation and Planning and Design Commissions would be conducted as a part of the EIR review and entitlements process. The project entitlements would ultimately require approval by the City Council.

State approvals/actions that would be considered for the proposed project include, but are not limited to:

- Office of Statewide Health Planning & Development ("OSHPD") Decommissioning of Onsite Hospital Facilities

ENVIRONMENTAL EFFECTS AND SCOPE OF THE EIR

The EIR will analyze potentially significant impacts that result from demolition of the existing hospital and development of the proposed project. The EIR will evaluate the potentially significant environmental impacts of the proposed project, on both direct and cumulative basis, and will identify mitigation measures that may be feasible to lessen or avoid such impacts. Impacts to be addressed include traffic, noise and air quality. The EIR will also identify and evaluate alternatives to the proposed project.

Pursuant to section 15063 (a), of the CEQA Guidelines, an Initial Study has not been prepared for the proposed project. Rather, it is anticipated that the EIR will evaluate the full range of environmental issues contemplated for consideration under CEQA and the CEQA Guidelines, including:

- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse gas emissions and climate change
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic and Parking
- Utilities

SUBMITTING COMMENTS

Comments and suggestions as to the appropriate scope of analysis in the EIR are invited from all interested parties. Written comments or questions concerning the EIR for the proposed project should be directed to the environmental project manager at the following address by **5:00 p.m. on Friday, December 14, 2012**. Please include the contact person's full name and address in order for staff to respond appropriately:

Scott Johnson, Associate Planner
City of Sacramento Community Development Department,
300 Richards Blvd., Third Floor, Sacramento, CA 95811
Telephone: (916) 808-5842
E-mail:srjohnson@cityofsacramento.org

SCOPING MEETING

A public scoping meeting will be held on **Thursday, December 6, 2012, from 6:30 p.m. to 8:00 p.m**. at the following location:

Clunie Community Center
601 Alhambra Boulevard
Sacramento, CA 95816

Responsible agencies and members of the public are invited to attend and provide input on the scope of the EIR. The scoping meeting will be conducted in an open house format. Written comments regarding relevant issues may be submitted at the meeting.

Figure 1, Vicinity Map

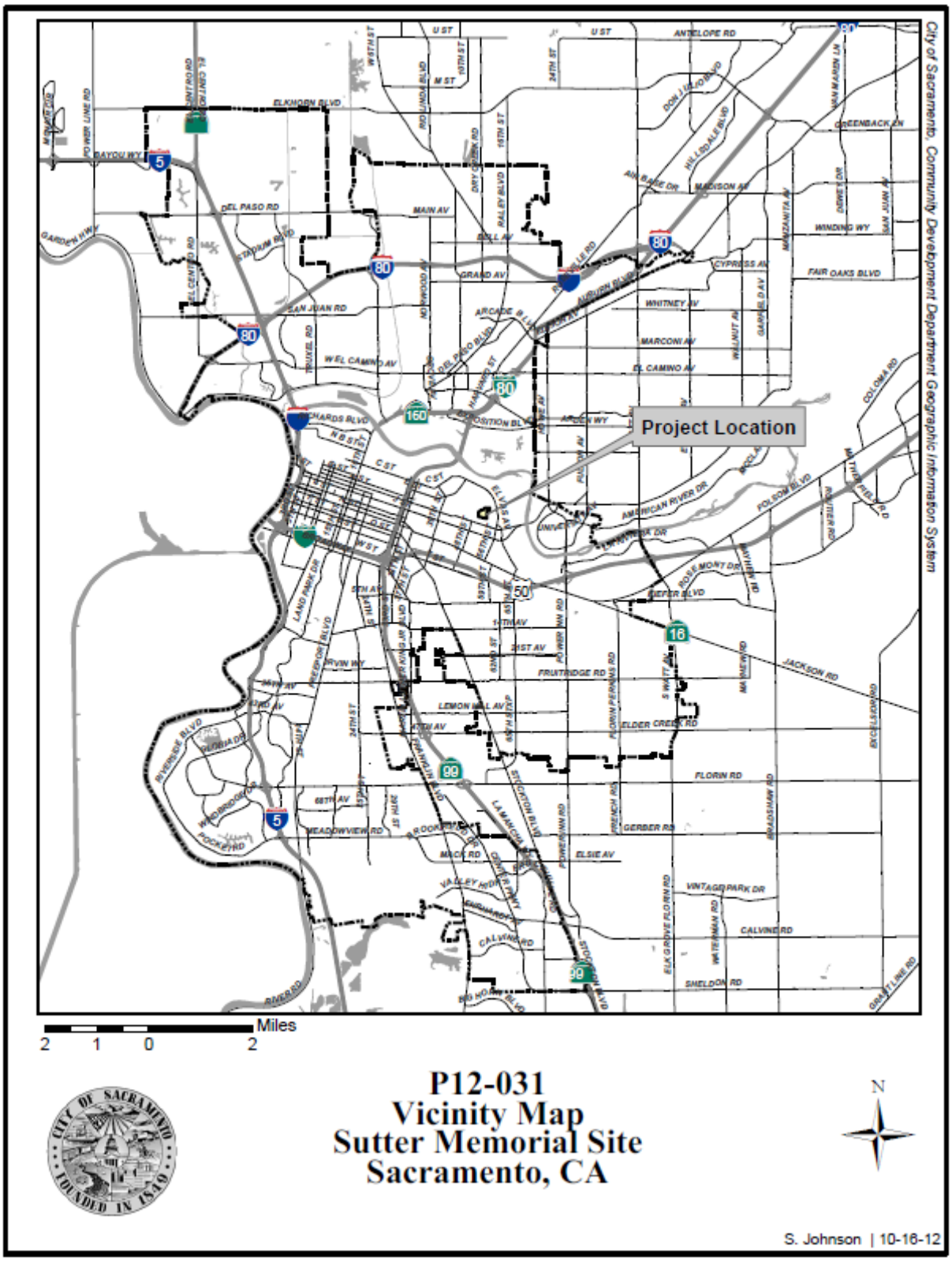

Figure 2, Project Location Map

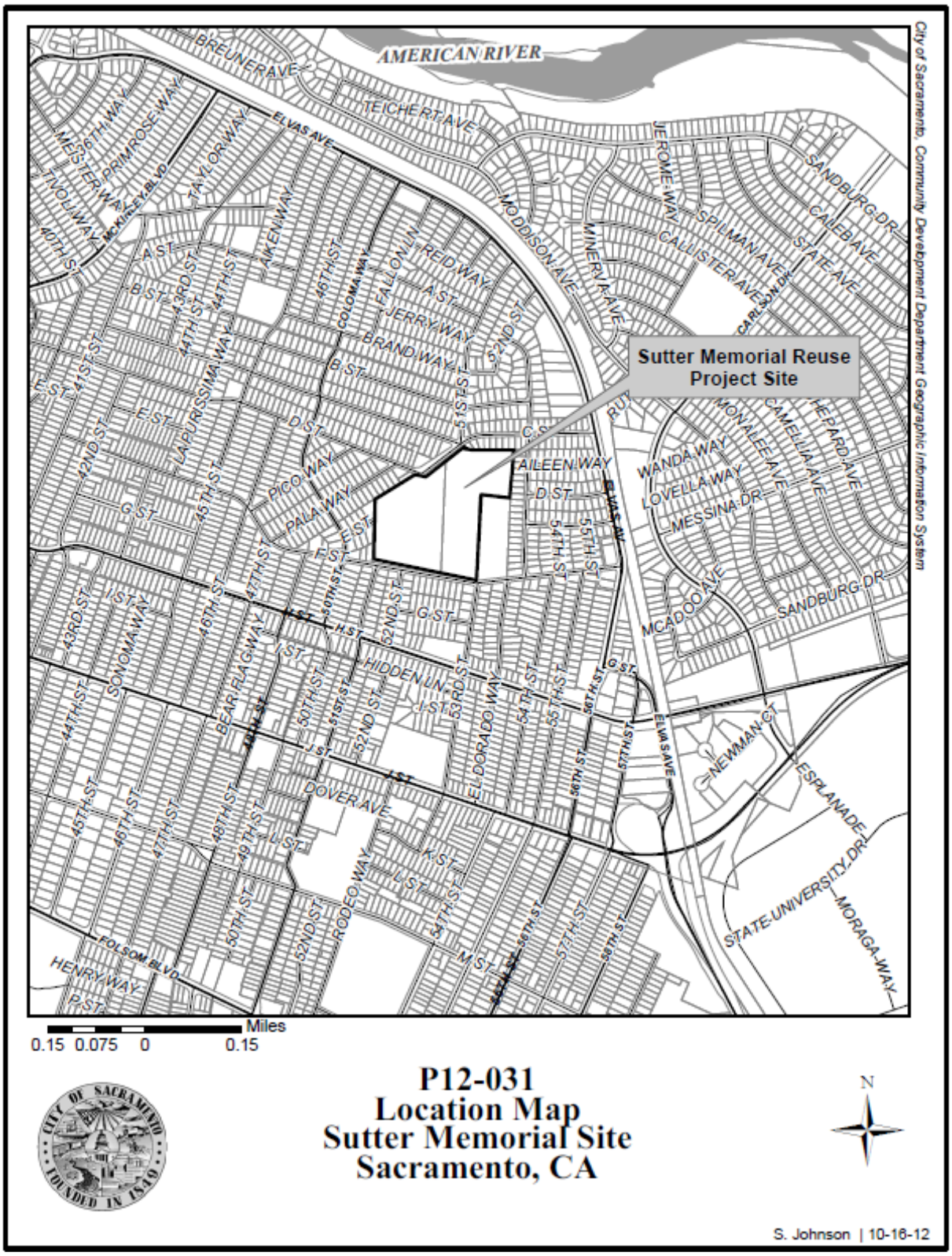

Figure 3, Conceptual Project Site Plan

Appendix B

NOP Comment Letters

Scott Johnson

From: Andy Carey <andycarey@storzco.com>
Sent: Thursday, December 20, 2012 10:58 AM
To: Scott Johnson
Subject: Sutter Memorial Redevelopment Project - park scale

Hello Scott,

I'm writing today about the Sutter Memorial Redevelopment Project that Stonebridge (Teichert) is processing on behalf of Sutter. For your sake I will try to be brief! My family lives within sight and earshot of the maternity bells of Sutter Memorial. Generally I support the project and Stonebridge's approach to design standards and neighborhood fit. My one concern worth particular note, as I have shared with Randy Sater, Mike Isle and Josh Leachman, is the shape and scale of the proposed neighborhood park.

I have participated in the planning, entitlement and development of dozens of real estate projects in my previous role heading up the real estate department of Granite Construction. And I'm currently working on Granite's behalf and partnered with Stonebridge on a 5,900+ acre Sacramento County master plan. My point is that I have some professional experience with these types of projects and their design.

Regarding the Sutter Memorial redevelopment park being planned, in my experience I have found linear parks work well only at a certain scale. In large neighborhoods, properly scaled, they provide a nice amenity – like Curtis Park (300 feet wide). At the smallest scale (Villebois in Portland, with 20+- ft linear parks) they provide pedestrian connections to amenities, open space and/or larger parks at one or both ends of the linear park. But at the scale being proposed by Stonebridge, it appears the width is 50-60 feet. This is a "dead zone" scale in my opinion. It is similar to the T Street median (aka Sierra Vista Park) in Sacramento. It is too narrow to safely throw a ball or Frisbee without encroaching dangerously on the roadways on either side of the park. Parents could not safely let their children play without greater distance from the adjacent roadways. And amenitizing a park this narrow becomes challenging if not nearly impossible. Hopefully that is not the intent. I know the Stonebridge guys, and I don't believe that is how they operate.

My suggestion is not to add park acreage to the project, and hamper the developer's ability to make a reasonable return on the asset. But rather to simply re-scale the park, maintaining its total net acreage, but making it less narrow and more useful to those – like my family – who would love to let children safely play in a neighborhood park. The intent for all stakeholders is to create a redeveloped neighborhood that fits seamlessly in our broader community, and I believe this is one change that would substantially improve the project's ability to meet that goal.

I have heard from several others that agree and support this general position, and you may hear from them soon. Please feel free to call or email to discuss further. I would very much like to help this project be a success for everyone involved.

Thank you, and happy holidays...
Andy

Andy Carey
General Manager | Storz Management Company
andycarey@storzco.com | 916-989-5333 x18

Scott Johnson

From: Amy Kennedy <AKENNEDY@dfg.ca.gov>
Sent: Friday, November 16, 2012 9:20 AM
To: Scott Johnson
Subject: Re: Sutter Memorial Site (P12-031) CEQA Notice of Preparation

Hi Scott, I've looked over this NOP and, given it location in an urban setting with no natural habitat to speak of, I have no comments at this time.

My only (informal) comment would be to be mindful of the amount of tree's removed, and avoiding the nesting period for tree removal.

Thanks and have a great weekend.

Amy Kennedy
Dept. of Fish and Game
1701 Nimbus Road
Rancho Cordova, CA 95670
916-358-2842
><)))*>... ><)))*>

Scott Johnson

From: Ron Maertz <ronmaertz@surewest.net>
Sent: Thursday, November 15, 2012 10:46 AM
To: Scott Johnson
Cc: 'Rob Burness'; 'Peter Christensen'; 'Traci Canfield'
Subject: NOP Sutter Memorial Site Redevelopment P12-031

The Environmental Council of Sacramento (ECOS) has done a preliminary review of the subject project. We recommend that the DEIR include an environmentally superior higher density alternative. This is a unique infill site with immediately adjacent transit service. The proposed density does not support transit service and is a serious underutilization of this infill opportunity. Underutilization of infill opportunities will result in continued development pressures at the urban fringe, resulting in substantial additional environmental impacts.

Ron Maertz
Land Use Co-Chair
Environmental Council of Sacramento
P.O. Box 1526
Sacramento, CA 95812-1526

Scott Johnson

From: Jeffrey Muss <jmuss@sierraengineering.com>
Sent: Tuesday, December 04, 2012 11:24 PM
To: Scott Johnson
Cc: 'Josh Leachman'
Subject: RE: SUTTER PARK NEIGHBORHOOD PROJECT UPDATE: NOTICE OF PREPARATION FOR AN ENVIRONMENTAL IMPACT REPORT AND SCOPING MEETING FOR THE SUTTER MEMORIAL SITE PLAN

Scott,

I live at 4975 F Street (corner of 50th and F), the area very close to the Sutter Park project. We strongly support Stonebridge's proposal for the redevelopment of the Sutter Memorial Hospital site. However, we are very concerned about the neighborhood impacts of a) the demolition process and b) the redevelopment. Specifically, we are concerned about the noise, traffic and dust associated with demolition of the current site, and traffic and noise associated with the redevelopment of the site. Of particular concerned is the potential prolonged impacts associated with extended build-out of the site. We hope that the EIR will address these issues.

Thank you for your consideration,

Jeff Muss
jamuss@surewest.net
4975 F Street

p 1 of 2

Dear Mr. Scott Johnson, 12-14-12

"Thank you so much" for taking the community's comments/suggestions re: the environmental impact for the Sutter Memorial Site Plan.

As we discussed, my big concern is to lessen the impact of the lights as our homes sit lower than the Sutter Memorial Property. Sutter has helped to put shading on the "F" street portion of the many tall lights + the wall mounted light that have an intense bright wattage. I have hopes that the lighting needed on the future property, while working, would do something similar OR put new lighting facing North at an angle so that it doesn't shine into our homes. We hope that the developers/workers would also be "good neighbors" to us, as Sutter has tried to be. (Besides nearly ALL the new light bulbs are extremely bright and intense, compared to light bulbs in the past). PLEASE give this area attention. We don't want it to look like a car lot after the workers go home. PLEASE prevent any "light pollution".

Sincerely,
Katie Hansen
5210 "F" Street Sac.
916.599.4531.

Addendum Comments: p 2

Also, we were wondering if there would be "fencing" before/after demolition to prevent "squatters" or any trespassers.

Many of us on this block are also hoping that the develop project would be done ASAP - so that the "noise" from building & the traffic of workers would not last for years but done in a short a period of time. Many are retired and are here during the day and would want the noise to be minimized as much as possible & completed as soon as possible.

Again, "Thank you."

I would welcome a phone call anytime if this letter needs clarification. My experience in the past with the City employees has been very good. We appreciate your help and look forward to the future & communicating with you.

Respectfully,
Katie Hansen
5210 "F" Street - Sac
916 599 4531

Scott Johnson

From: kathrynkarrer1@comcast.net
Sent: Saturday, December 01, 2012 1:37 PM
To: Scott Johnson
Subject: Sutter Memorial Hospital/ article in the Inside East Sacramento

I don;t know that this inquiry would fall into the category of an Environmental Impact assessment, exactly, but perhaps suggestions related to the Sutter properties might be solicited from those who worked there over the years. Perhaps a "reunion" occasion would bring together many who might be interested in somehow preserving a legacy of their work in the future of this enterprise.Respectfully, Kathryn Karrer

December 14, 2012

Scott Johnson, Associate Planner
City of Sacramento Community Development Dept.
300 Richards Blvd, 3rd Floor
Sacramento, CA 95811-0218

RE: Notice of Preparation for Sutter Memorial Site Plan (P12-031)

Dear Mr. Johnson:

I am writing in response to the Notice of Preparation for the proposed redevelopment of the Sutter Memorial Hospital site. I am a close neighbor of the site and have lived here for just shy of 20 years. Let me start by saying I am very pleased with the land uses outlined in the proposal and am favorably disposed to the project. I also want to commend Stonebridge Properties and Sutter Health for undertaking extensive outreach and communication with the neighborhood during the preparation of their application. Because Sutter Memorial is situated so intimately within, and completely surrounded by, residential areas within East Sacramento, it's a unique and sensitive setting. Stonebridge has been very considerate, thorough, and thoughtful in working with and responding to the area residents.

I am very supportive of re-use of the site and excited about the prospects for change, but there are some issues regarding the entitlement process and the environmental review that I would like to comment on before the DEIR is written and we proceed to hearings before the planning commission and council.

Process

My comments here go beyond the usual CEQA scope because so many key decisions will be made between now and the publication of the DEIR, but there is no formal process for public participation in that time period. This is a flaw in the process common to all local governments. After the NOP, we commence the black box phase of planning, without transparency in defining the project, refining the description, adjusting the site plan, creating utility and improvement plans. After this, we can only react. So please forgive me for the length of this letter.

Existing Regulatory Setting
The last time I asked to see the existing entitlements for the hospital and adjoining medical office building, I was informed that the original permits couldn't be located in city files. So we can't find out what assumptions or conditions or limitations might have been included. How will the EIR overcome this? What assumptions will be used for the No Project alternative?

Entitlements Requested
The requested entitlements include a General Plan Amendment, rezoning, a tentative map, and a PUD. Although closure of the hospital is a major impact in itself, the city doesn't issue a permit for this and OSHPD oversees decommissioning the site. I would like to add that given the size of the effort and the length of time involved, that the demolition permit be called out on the list of entitlements. It's an administrative rather than discretionary permit, but I anticipate that the EIR will recommend many mitigation measures associated with it.

I also request that the medical office building located at 5301 F Street be included in the General Plan Amendment. My understanding is that the permits for 5301 F were included in the 1965 era planning entitlements for the hospital. Since its current and future uses are medical related, its form and use are in great contrast to the rest of the neighborhood, and its viability is tied to the presence of the hospital, we have a great opportunity here to consider long term use. We should not pass up this opportunity to consider General Plan policies for this site, in context with the surrounding changes, even though it is not currently proposed for redevelopment.

Thresholds of Significance
CEQA Guidelines allow communities to set their own thresholds. The guidelines define a threshold as "an identifiable quantitative, qualitative or performance level of a particular environmental effect... supported by substantial evidence."

Currently the city uses the following thresholds for evaluating traffic impact: for collectors and arterials, the level of service at key intersections; for bikeways, whether a project will hinder or eliminate an existing designated bikeway, or result in unsafe conditions for bicyclists, including unsafe bicycle/pedestrian or bicycle/motor vehicle conflicts; and for pedestrian facilities, whether a project will result in unsafe conditions for pedestrians.

There are no thresholds for evaluating impact on residential streets. There are no thresholds for evaluating impacts on quality of life, or neighborhood character. The land use impact threshold is whether a project conflicts with any applicable land use plan, policy, or regulation, but the review is typically limited to zoning and general plan land use designation, and the mitigation is to amend the zoning. For transit impact, the threshold is

whether there will be sufficient capacity on transit vehicles, not whether transit will be safe, convenient, timely, easy to use, and an attractive alternative to driving.

The city adopted very impressive visioning and policy statements in the new General Plan that clearly state our goals for how we want our city to develop. But if we never compare projects to those goals, how can we tell if a project is consistent with them? The thresholds of significance used to evaluate the project must be improved to directly relate to our goals and adopted policies.

Local Economic Impact of Closure of the Hospital

While it's not an environmental issue under CEQA, I continue to be concerned about the loss of business for neighborhood establishments like Nopalito's, Sacramento Bagels, Sellands, Café Rolle and others. Part of what makes this corner of East Sacramento such a great place to live is having successful local businesses integrated so closely in the neighborhood. While the city's Economic Development department would give this their attention if the hospital jobs (and visitors) were leaving the community entirely, I am concerned that they won't in this situation where they are just moving a mile and a half away. I hope that during the project review process there will be some expert attention given to the impact on neighborhood businesses, and that the city identifies ways to assist businesses through the transition.

Land Use

I hope that the PUD and land use entitlements set a minimum number of units, and are flexible on the maximum. This is a great opportunity to implement the Blueprint principles for infill development, and include as many housing units as possible. The variety of housing types proposed is also a great feature of the proposal. I want to make sure the neighborhood continues to accommodate a wide range of family types, incomes, and living styles – including group living for seniors. I plan to be one someday. The only housing type that I find unappealing is large lot single family mini-mansions (lots over 7500 sf, and houses over 3,500 sf).

I would also like to make sure that any lots designated for commercial use could alternatively be developed as residential. I do not think commercial uses are viable on the site and would hate to see any lots go unused.

Urban Design

One concern I have is that the redeveloped site might become an exclusive enclave, rather than a welcome addition to the East Sacramento community. Every effort should be made through design of the site to weave it into the existing fabric. I object to a site plan that has lots backing onto F Street or other existing streets. It's contrary to the development pattern throughout the neighborhood, not consistent with the general character of the surrounding streets, and just not friendly.

Is there any kind of change you could impose on the space available sign at 5301 F Street? It is looking mighty tired. It's noticeably leaning over. I suppose it is larger and taller than permitted by code in the RO zone because it is a real estate sign. In which case, it should be considered a temporary sign, yet it's been there the entire twenty years I have lived in the neighborhood.

Demolition Period

The NOP and project description don't specify this, but I heard that deconstruction (rather than demolition) is proposed for the hospital building. This is good news, because it will reduce waste and air pollution. But the longer time involved, and the number and type of trucks that will haul the material away, are concerns. The permit and the EIR should both include provisions to mitigate neighborhood impacts.

Construction Period

Construction of streets and utilities on the site will be a major undertaking. There will necessarily be impacts on the surrounding streets, and associated mitigation measures. We are concerned about traffic and parking impacts during construction.

Offsite Improvements

To the extent possible, the new project should correct some of the problems and deficiencies in the surrounding area: inadequate sidewalks, street lighting, drainage (every storm causes flooding at 53rd/H and 53rd/F), rolled curbs, utility undergrounding, etc. The city's current development standards should apply whenever there is major construction, even on existing streets. I was greatly disappointed by the fact that Mercy and Sacred Heart did not correct existing problems on 39th Street between H and J as part of that project. For example, the newly constructed sidewalks are still obstructed by sidewalk guys on the utility poles! You have the right policies in place in the Pedestrian Master Plan. They need to apply in existing neighborhoods whenever we get the redevelopment opportunity, not just in areas of new construction.

Traffic

The city's existing street hierarchy identifies the C/51st/ D Street corridor on the north side of the site as the only collector street serving the site. Please keep it that way, and do not designate F, 53rd or any other street as a neighborhood collector. These are local neighborhood streets even though the hospital and medical office building have generated heavy traffic and commercial use on them.

Access and Circulation

We have the opportunity with this project to overcome and correct past planning mistakes that made 53rd Street a primary access point for the hospital, a use it was not designed or intended for. While I appreciate (THANK YOU!!) that the redeveloped site will greatly

reduce the overall volume of traffic, it is good policy to take advantage of the entire street network to distribute traffic more evenly throughout the existing area rather than focus it on a single street.

The site plan converts the existing private driveway at the intersection of F and 53rd into a public street (I really hope you don't approve changing street names within the project!) and one of the primary access points for the neighborhood. While I understand that the proposed public street will also serve as access for the office building at 5301 F Street, I would prefer to see the primary site access off-set from the existing 53rd Street intersection.

The new north/south street that appears on the site plan should include a break, an offset, or some other obstacle within the site so that it doesn't become the easiest and fastest route through the site and onto 53rd Street.

This is also the time to remove the traffic signal at 53rd and H Streets, or convert it to a pedestrian–only signal. With the tremendous reduction in traffic volume, it will no longer be necessary. This would greatly reduce the number of collisions and near misses at that intersection and help distribute traffic more evenly on the network. Don't even think about creating left turn pockets on H Street.

The additional access to the site from the north, and the improved access from the west, are great improvements to the site and to the neighborhood, completing the grid and connecting our local streets. They are absolutely essential to the reuse.

Neighborhood Traffic Management and Parking

A few years ago, the area surrounding Sutter Memorial went through the NTMP process and some valuable changes were made (the stop signs at Coloma and Pico and on F/46th being two examples). But in spite of the obvious traffic and congestion problems on F and 53rd Streets, there was nothing we could do because of the emergency access routes to the hospital. Please, please, please do not make us go through the NTMP process again in order to get some traffic control on these streets. And please don't wait to implement these changes until the new neighborhood is built. As long as 53rd and F remain access routes for the medical office building and for the residential areas to the north and east (e.g. Lagomarsino Way), we will continue to experience higher volumes and speeds and greater congestion from parking and other spillover effects.

Specifically, we need speed control on 53rd, immediate conversion of the neighborhood parking limits to one hour (from two hours) on 53rd, and better distribution of traffic to the broader street network. Neighborhood traffic and parking management should be implemented as soon as the hospital's emergency services are discontinued.

Timing
Closure of Sutter Memorial has been discussed for a decade. In all that time, I have stated that the worst possible thing that could happen to the site is nothing. Nothing could do more damage to the neighborhood than ending up with an empty hulk of a building, or a vacant site. The entitlements, mitigation measures, and any other regulations you can come up with need to set timelines and deadlines for progress on demolition, cleanup and rebuilding of the site. Please include enforceable deadlines in the deal. For example, I expect no more than one year after closing the hospital for the demolition and removal process, and no more than five years from now to complete the streets and utilities.

Thank you for the opportunity to comment.
Let me say again that I am very supportive of this project and the proposed uses; I think Sutter Health is doing a great service to the community in the way they are proposing to redevelop the site.

Sincerely,

Maureen Daly Pascoe
680 53rd Street
Sacramento, 95819
916.455.3620
916.396.0648

c: Councilmember Steve Cohn
Neighborhood Associations: MENA, ESP, ESIA
David Felderstein
Evan Compton, City of Sacramento

Sutter Memorial Hospital building history from Sutter staff:

1 South wing (Old Maternity main building) 1936
2 South wing (annex addition) 1940
3 Center wing (basement thru 3rd floor) 1955
4 Center wing (4th floor thru 7th floor) 1959
5 Lab (main area) 1960
6 Lab (back addition) 1967
7 Building D (Old D&T Building) 1964
8 Carpenter Shop 1965
9 East wing 1967
10 Building B (Old Laundry Building) 1967
11 Building C (Old R.O.C. Building) 1974
12 North Tower 1984
13 Imaging and ER 1984
14 Sharing Place 1984
15 MRI 1989
16 Outpatient diabetes care 2005

SACRAMENTO AREA BICYCLE ADVOCATES

December 13, 2012

Scott Johnson, Associate Planner
City of Sacramento Community Development Department
300 Richards Boulevard, Third Floor
Sacramento, CA 95811
srjohnson@cityofsacramento.org

Subject: Notice of Preparation (NOP) for Environmental Impact Report (EIR) on the Sutter Memorial Site Plan

Dear Mr. Johnson:

Thank you for the opportunity to comment on the subject NOP. We are quite interested in the proposed plan for the Sutter Memorial site because of the features that will support and encourage bicycling including its multiple connections to the existing neighborhood with its low-volume, low-speed street pattern and its close proximity to existing employment centers. The site plan embodies "smart growth" principles in designing a mixed-use community that will be viable and attractive for future generations as well as the current one.

We request that the EIR address the following issues in its analysis of project impacts and benefits on transportation, circulation and parking:

- Compliance of all streets with the City of Sacramento's "Pedestrian Friendly Street Standards" Policy (http://www.cityofsacramento.org/transportation/dot_media/engineer_media/pdf/Approved-Ord.pdf);
- Compliance with the City of Sacramento's 2030 General Plan goals M 1.3, M 4.2, and M 5.1 on connectivity, Complete Streets, and bikeways (especially the adequacy of internal and external connections for bicyclists and pedestrians);
- Adequacy of bicycle parking facilities at the proposed residential mixed use parcel and compliance with the City's updated bicycle parking requirements; and
- Adequacy of pedestrian and bicyclist safety features at the external intersections connecting the site to the surrounding neighborhood.

SABA works to ensure that bicycling is safe, convenient, and desirable for everyday transportation. Bicycling is the healthiest, cleanest, cheapest, quietest, most energy efficient, and least congesting form of transportation.

Thank you for considering our comments and requests.

Sincerely,

Project Assistant

CC: Ed Cox, Sacramento Alternatives Modes Coordinator (ecox@cityofsacramento.org)
Joseph Hurley, SMAQMD (jhurley@airquality.org)

909 12TH STREET, SUITE 116 SACRAMENTO, CA 95814 (916) 444-6600 WWW.SACBIKE.ORG

FIRE DEPARTMENT
"An All-Risk Organization"

Ray Jones
FIRE CHIEF

CITY OF SACRAMENTO
CALIFORNIA

5770 FREEPORT BL
SUITE 200
SACRAMENTO, CA
95822-3516

PH 916-808-1300
FAX 916-808-1677

TRANSMITTAL

DATE: December 14, 2012

ATTN: Scott Johnson, Associate Planner

FROM: King Tunson, 808-1358
Fire Department

SUBJECT: **NOP Draft EIR for Sutter Memorial Site (P12-031)**

1.I mpact to Public Services (Fire) needs to be addressed in the EIR.

Wastewater Management

SRCSD

November 27, 2012

Scott Johnson, Associate Planner
City of Sacramento Community Development Department,
300 Richards Blvd., Third Floor,
Sacramento, CA 95811

Main Office
10060 Goethe Road
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Sacramento Regional Wastewater
Treatment Plant
8521 Laguna Station Road
Elk Grove, CA 95758-9550
Tele: (916) 875-9000
Fax: (916) 875-9068

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County of Sacramento

County of Yolo

City of Citrus Heights

City of Elk Grove

City of Folsom

City of Rancho Cordova

City of Sacramento

City of West Sacramento

Stan Dean
District Engineer

Ruben Robles
Director of Operations

Prabhakar Somavarapu
Director of Policy & Planning

Karen Stoyanowski
Director of Internal Services

Joseph Maestretti
Chief Financial Officer

Claudia Goss
Public Affairs Manager

Subject: NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT AND SCOPING MEETING FOR THE SUTTER MEMORIAL SITE PLAN (P12-031)

Dear Mr. Johnson:

Sacramento Regional County Sanitation District (SRCSD) has reviewed the Notice of Preparation for the Sutter Memorial Site Plan and has the following comments:

Local sewer service for the proposed project area will be provided by the City of Sacramento. Conveyance from local trunk sewers to the Sacramento Regional Wastewater Treatment Plant (SRWTP) will be provided by SRCSD through large pipelines called interceptors.

SRCSD is in the process of finalizing an Interceptor Sequencing Study (ISS) that will aid in planning and implementing regional conveyance projects. The ISS is currently undergoing environmental review by the Department of Community Development - Planning and Environmental Review and is expected to be adopted early 2013.

SRCSD sewer systems are designed using predicted wastewater flows that are dependent on land use information provided by each land use authority. Sewer studies, including points of connection and phasing information will need to be completed to fully assess the impacts of any project that has the potential to increase existing or future flow demands.

Customers receiving service from SRCSD are responsible for rates and fees outlined within the latest SRCSD ordinances. SRCSD fees for connecting to the sewer system are set up to recover the capital investment of sewer and treatment facilities that serves new customers.

SRCSD is not a land-use authority. Projects identified within SRCSD planning documents are based on growth projections by land-use authorities. Onsite and offsite impacts associated with constructing sanitary sewers facilities to provide service to the subject project must be included in this environmental impact report.

If you have any questions regarding these comments, please contact me at 916-876-9994

Sincerely,

Sarenna Moore
SRCSD/SASD
Policy and Planning

Cc: SRCSD Development Services, SASD Development Services, Michael Meyer, Dave Ocenosak, Prabhakar Somavarapu

Scott Johnson

From: Tim Gaffney <TGaffney@cde.ca.gov>
Sent: Monday, December 10, 2012 9:55 AM
To: Scott Johnson
Subject: Sutter Memorial EIR

Mr. Johnson,

We am writing regarding the Sutter Memorial EIR. It appears that the proposed project will be an asset to the community and we hope the report explores addresses the impact project construct will have on the surrounding neighborhood. We hope construction can proceed with a minimum disruption as well as noise, dust, etc., and that these issues will be included in the EIR.

Thank you,
Tim Gaffney
Michelle Irvine
601 50th Street

Scott Johnson

From: Gregory Bitter
Sent: Tuesday, January 08, 2013 8:19 AM
To: Stacia Cosgrove; Evan Compton; Scott Johnson
Subject: FW: Sutter Memorial demolitionc

FYI

From: THOMAS MEYER [mailto:tommeyeresq@cs.com]
Sent: Monday, January 07, 2013 6:03 PM
To: Gregory Bitter; Steve Cohn; brian@hlandco.org; rsater@teichert.com
Subject: Re: Sutter Memorial demolitionc

Greg,

Thanks for your response.

My biggest concern which I would like addressed in the EIR draft is the loss of value to my house right now as it backs up to the hospital parking lot. If I sell my house to avoid the incredible toxics, noise and construction etc, I have to disclose to any buyers what is being planned. Brokers have told me my house is now worth $50,000 less than what it was worth in November 2012 due to this potential project.
The EIR needs to have Sutter compensate me and other owners around the hospital for this loss. Or Sutter can offer to buy our properties at the November 2012 value before the NOP was published.
If the above is not addressed in the EIR, I will file litigation to require it.
Thank you.
Tom

THOMAS P. MEYER
ATTORNEY AT LAW

Sacramento Office
PO Box 19736
Sacramento, Ca 95819
916-444-2020 cell

-----Original Message-----
From: Gregory Bitter <GBitter@cityofsacramento.org>
To: THOMAS MEYER <tommeyeresq@cs.com>
Cc: Scott Johnson <SRJohnson@cityofsacramento.org>
Sent: Mon, Jan 7, 2013 3:23 pm
Subject: RE: Sutter Memorial demolition

Tom,

Thanks for the voicemail and email. There will be ample to provide comments on the EIR for this project. I have spoken with Scott Johnson and you are on the noticing list for the various documents that will be prepared as this project moves forward. There will be time to comment on the Draft EIR as well as the final

EIR. The preparation of the EIR is just now getting under way, so we don't quite yet have a tentative date the Draft EIR will be available for public review. I can tell you that the Draft EIR will be out for public review for a 45 day period, so that should give you time to get us your comments. The Final EIR will have a response to all comments. There is no set timeline for comments on the Final EIR, generally these comments are provided at the public hearings.

There will be at least two public hearings, one before the Planning and Design Commission (for a recommendation) and one before the City Council for the ultimate decision.

Please let me know if I've answered your question. I'm happy to make sure you understand the process and timing so you can participate in this public process.

Greg

Gregory Bitter, AICP

Principal Planner |
Community Development Department; City of Sacramento |
300 Richards Blvd, 3rd Floor | Sacramento, CA 95811 |
phone 916.808.7816 |
gbitter@cityofsacramento.org |

From: THOMAS MEYER [mailto:tommeyeresq@cs.com]
Sent: Friday, January 04, 2013 9:20 AM
To: Gregory Bitter
Subject: Sutter Memorial demolition

Greg,

Thanks for your email response. I understand that our concerns must be submitted to the City by certain deadlines. Therefore, please advise as to the deadline for Letters of Concern to be submitted so that they are addressed in the draft and/or final EIR.
Thanks,
Tom

THOMAS P. MEYER
ATTORNEY AT LAW

Sacramento Office
PO Box 19736
Sacramento, Ca 95819
916-444-2020 cell

From: THOMAS MEYER <tommeyeresq@cs.com>
Date: November 17, 2012, 3:33:55 PM PST
To: <scohn@cityofsacramento.org>, <brian@hlandco.org>
Subject: EIR for Sutter Memorial

Hi Steve,

Marilynn Mackey Meyer and I own and live on C Street directly behind Sutter Memorial's Employee Parking lot D.
We are vehemently against the Stonebridge Properties planned proposal of putting in 125 houses and a few commercial buildings on 19 acres right behind our house and in the middle of our neighborhood. Cutting our property value in half, to say nothing of the noise, pollution etc of enduring a five year process, will be minor consequences compared to the litigation the City of Sacramento will receive from me and many others.
My FIRST, question to you, Steve, is this:
Why did we receive yesterday a NOTICE OF PREPARATION OF AN EIR AND SCOPING MEETING 12-6-12 FOR THE SUTTER MEMORIAL SITE PLAN before the City even held public hearings to amend the 2030 General Plan to allow the proposed use.
The California Supreme Court held in 1990 that the General Plan was the constitution for all future development. Why put the horse before the cart?

Tom

THOMAS P. MEYER
ATTORNEY AT LAW
PO Box 356
Copperopolis, Ca 95228
916-444-2020 cell

Sacramento Office
PO Box 19736
Sacramento, Ca 95819
916-444-2020 cell

Sutter Memorial Site (P12-031)

ENVIRONMENTAL IMPACT REPORT (EIR) NOTICE OF PREPARATION (NOP)

COMMENT FORM

Date:

Please provide the following information if you wish to receive Notice of Availability of the Draft EIR and to document the author of comments received. Thank you.

Name: Tom Sisterson

Email: tsisterson@gmail.com

Address: 318 Lagunasiva Way Sac, CA 95819

Organization: homeowner

Please provide us with your written comments by **December 14, 2012**. Comments on the NOP may be sent to:

City of Sacramento
Community Development Department
300 Richards Blvd, Third Floor
Sacramento, CA 95811

Attn: Scott Johnson, Associate Planner (Email: srjohnson@cityofsacramento.org)

You may attach additional pages to this form and/or you may submit your written comments separately. Written comments on the scope of the EIR will be acknowledged in the Draft EIR and will be considered in preparation of the document.

Major concern about the demolition of hospital.
(1) Most likely there are hazardous materials - lead paint, asbestos - need protection from these materials when Sutter is torn down - dust - pollution from trucks

(2) The physical vibrations/movement could damage home foundations - cracking walls/ - need assurance that the impact of abatement & de-construction will not shake my home - shaking

(3) Noise - length of time during the day, how loud
(4) Traffic - will Alta be shut down? will there be detours -

— over — info on back

(5) What about damage to roads from trucks & "heavy" equipment.

(6) - Proposed use is OK - just concerned about removal of sulfur structure.

(7) What about any liquid runoff or if water is used to limit dust - or soil contamination?

(8) Will homes closest to site have the same protection as those further away?

*** I live on Lagomarsino. Can the powerlines be moved from my backyard?

Appendix C

Air Quality and Greenhouse Gas Modeling Results

CalEEMod Version: CalEEMod.2011.1.1 Date: 7/10/2013

SutterPark_Baseline

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Hospital	476.45	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			
			58		

1.3 User Entered Comments

Project Characteristics - Baseline condition assumes ongoing operation of existing Sutter Memorial Hospital.

Land Use - Hospital total square footage = 476,452
Lot acreage = 19.36 (Source: General Plan Amendment Exhibit, Dec 2012).

Baseline hospital operations only (no construction)

Vehicle Trips - Weekday trip rate = 14.12 (Source: Fehr and Peers, Existing Conditions Traffic Study, 2011, page 9).

Energy Use - Energy intensities adjusted based on annualized energy usage data for existing hospital accounts

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.41	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.24	2.19	1.84	0.01		0.00	0.17		0.00	0.17	0.00	5,837.40	5,837.40	0.23	0.11	5,876.91
Mobile	7.43	15.73	68.52	0.09	8.29	0.52	8.81	0.35	0.52	0.87	0.00	7,760.42	7,760.42	0.46	0.00	7,770.09
Waste						0.00	0.00		0.00	0.00	1,044.52	0.00	1,044.52	61.73	0.00	2,340.84
Water						0.00	0.00		0.00	0.00	0.00	92.19	92.19	1.83	0.05	145.20
Total	**10.08**	**17.92**	**70.36**	**0.10**	**8.29**	**0.52**	**8.98**	**0.35**	**0.52**	**1.04**	**1,044.52**	**13,690.01**	**14,734.53**	**64.25**	**0.16**	**16,133.04**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.41	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.24	2.19	1.84	0.01		0.00	0.17		0.00	0.17	0.00	5,837.40	5,837.40	0.23	0.11	5,876.91
Mobile	7.43	15.73	68.52	0.09	8.29	0.52	8.81	0.35	0.52	0.87	0.00	7,760.42	7,760.42	0.46	0.00	7,770.09
Waste						0.00	0.00		0.00	0.00	1,044.52	0.00	1,044.52	61.73	0.00	2,340.84
Water						0.00	0.00		0.00	0.00	0.00	92.19	92.19	1.83	0.05	145.20
Total	**10.08**	**17.92**	**70.36**	**0.10**	**8.29**	**0.52**	**8.98**	**0.35**	**0.52**	**1.04**	**1,044.52**	**13,690.01**	**14,734.53**	**64.25**	**0.16**	**16,133.04**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	7.43	15.73	68.52	0.09	8.29	0.52	8.81	0.35	0.52	0.87	0.00	7,760.42	7,760.42	0.46	0.00	7,770.09
Unmitigated	7.43	15.73	68.52	0.09	8.29	0.52	8.81	0.35	0.52	0.87	0.00	7,760.42	7,760.42	0.46	0.00	7,770.09

Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hospital	6,727.47	4,850.26	4245.17	16,860,035	16,860,035
Total	6,727.47	4,850.26	4,245.17	16,860,035	16,860,035

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Hospital	10.80	7.30	7.30	64.90	16.10	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	3,454.80	3,454.80	0.18	0.07	3,479.81
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	3,454.80	3,454.80	0.18	0.07	3,479.81
NaturalGas Mitigated	0.24	2.19	1.84	0.01		0.00	0.17		0.00	0.17	0.00	2,382.60	2,382.60	0.05	0.04	2,397.10
NaturalGas Unmitigated	0.24	2.19	1.84	0.01		0.00	0.17		0.00	0.17	0.00	2,382.60	2,382.60	0.05	0.04	2,397.10
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					

Hospital	4.46483e+007	0.24	2.19	1.84	0.01		0.00	0.17		0.00	0.17	0.00	2,382.60	2,382.60	0.05	0.04	2,397.10
Total		**0.24**	**2.19**	**1.84**	**0.01**		**0.00**	**0.17**		**0.00**	**0.17**	**0.00**	**2,382.60**	**2,382.60**	**0.05**	**0.04**	**2,397.10**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Hospital	4.46483e+007	0.24	2.19	1.84	0.01		0.00	0.17		0.00	0.17	0.00	2,382.60	2,382.60	0.05	0.04	2,397.10
Total		**0.24**	**2.19**	**1.84**	**0.01**		**0.00**	**0.17**		**0.00**	**0.17**	**0.00**	**2,382.60**	**2,382.60**	**0.05**	**0.04**	**2,397.10**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Hospital	1.37171e+007					3,454.80	0.18	0.07	3,479.81
Total						**3,454.80**	**0.18**	**0.07**	**3,479.81**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Hospital	1.37171e+007					3,454.80	0.18	0.07	3,479.81
Total						**3,454.80**	**0.18**	**0.07**	**3,479.81**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.41	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	2.41	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.55					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	1.86					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**2.41**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.55					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	1.86					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**2.41**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					92.19	1.83	0.05	145.20
Unmitigated					92.19	1.83	0.05	145.20
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Hospital	59.7852 / 11.3877					92.19	1.83	0.05	145.20
Total						**92.19**	**1.83**	**0.05**	**145.20**

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Hospital	59.7852 / 11.3877					92.19	1.83	0.05	145.20
Total						**92.19**	**1.83**	**0.05**	**145.20**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					1,044.52	61.73	0.00	2,340.84
Unmitigated					1,044.52	61.73	0.00	2,340.84
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Hospital	5145.66					1,044.52	61.73	0.00	2,340.84
Total						**1,044.52**	**61.73**	**0.00**	**2,340.84**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Hospital	5145.66					1,044.52	61.73	0.00	2,340.84
Total						**1,044.52**	**61.73**	**0.00**	**2,340.84**

Sutter Park Neighborhood Project: Summary of Modeled Short-Term Construction-Generated Emissions for the Proposed Project

Scenario 1: Assumes NO onsite crushing during demo (see next sheet in workbook for Scenario 2: demo WITH onsite crushing)

Phasing Overlap	Source	ROG (lb/day)	NOX (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)	CO2e (lb/day)	# of days	Total CO2e (lbs)	Total CO2e (MT)
	Year 2014								
	Phase I-A: Pre-Demolition	1.72	12.05	0.86	0.8	1,541	15	23,115.15	10
B,C	Phase I-B: Soft Demolition & Interior Recycling	2.03	12.34	8.22	0.89	1,562	36	56,248.56	26
B,C	Phase I-C: Above-Grade Demo	9.81	69.66	72.95	3.34	10,025	62	621,536.98	282
	Phase I-D: Slab on Grade Demo	3.24	27.5	9.86	0.96	4,644	16	74,301.28	34
	Maximum lb/day Year 2014 (no onsite crushing):	***11.84***	***82.00***	***81.17***	***4.23***	***11,587***			
	Phases 1-B,C overlap and have greatest combined lb/day								
	Year 2015								
E,G,H	Phase I-E: Below Grade Footing Demo	4.34	30.93	3.64	2.02	3,341	15	50122.05	23
	Phase I-F: Asphalt & Concrete Removal	4.15	32.94	19.91	1.5	4,658	10	46580.1	21
E,G,H	Phase I-G: Underground Utility and UST Removal	3.3	22.51	3.31	1.33	3,353	15	50293.05	23
E,G,H	Phase I-H: Tree Removal/Grubbing	2.33	18.24	7.97	0.78	2,994	15	44910.45	20
	Max Phase 1 in Year 2015 (no onsite crushing):	***9.97***	***71.68***	***14.92***	***4.13***	***9688.37***			439
	Phases 1-E,1-G, and 1-H overlap and have greatest combined lb/day								
	Phase II: Rough Grading	6.19	49.12	8.82	5.5	6,193	42	260,097.18	***118***
III-A,B	Phase III-A: Wet/Dry Utilities Installation (Trenching)	2.8	17.5	1.54	1.42	1,965	131	257,358.67	117
	Phase III-B: Roadway Paving	4.97	30.17	2.74	2.55	3,072	131	402,441.17	183
	Max Phase III	***7.77***	***47.67***	***4.28***	***3.97***	***5036.64***			***299***
IV-A,B	Phase IV-A: Vertical Building Construction	5.87	39.01	3.42	2.83	5,459	196	1,069,873.84	485
	Phase IV-B: Architectural Coating	36.93	2.61	0.34	0.23	369	196	72,339.68	33
	Max Phase IV 2015:	***42.8***	***41.62***	***3.76***	***3.06***	***5827.62***			***518***
	Year 2016								
	Phase IV-A: Vertical Building Construction	5.35	35.7	3.1	2.51	5,447	130	708,077.50	321
	Phase IV-B: Architectural Coating	36.89	2.41	0.32	0.2	367	130	47,702.20	22
	Phase V: Parks & Open Space Construction	2.37	14.49	1.75	1.04	2,457	130	319,398.30	145
	Maximum lb/day Year 2016	***44.61***	***52.6***	***5.17***	***3.75***	***8270.6***			***488***
									1,897

Notes:

lb/day = pounds per day; NOX = oxides of nitrogen; PM2.5 = fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less;
PM10 = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; ROG = reactive organic gases;
SMAQMD = Sacramento Metropolitan Air Quality Management District.
Source: Data Modeled by Ascent, 2013.

Sutter Park Neighborhood Project: Summary of Modeled Short-Term Construction-Generated Emissions for the Proposed Project

Scenario 2: assumes on-site crushing and recycling concrete & pavement. Truck hauling trips will be reduced in Phases 1-C,D,E,F compared to Scenario 1.

Note: only Phase (Demolition) was re-modeled for Scenario 2, all other phases are same between Scenarios 1 and 2

Phasing Overlap	Source	ROG (lb/day)	NOX (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)	CO2e (lb/day)	# of days	Total CO2e (lbs)	TOTal CO2e (MT)	Notes:
	Year 2014									
	Phase I-A: Pre-Demolition	1.72	12.05	0.86	0.8	1,541	15	23115	10	Same as Scenario 1 (no change)
B,C	Phase I-B: Soft Demolition & Interior Recycling	2.03	12.34	8.22	0.89	1,562	36	56249	26	Same as Scenario 1 (no change)
C,I	Phase I-C: Above-Grade Demo	8.86	61.69	31.55	3.08	8,801	62	545642	247	Scenario 2: 66% reduction in total concrete hauling trips applied
	Phase I-D: Slab on Grade Demo	3.01	25.59	3.96	0.9	4,351	16	69621	32	Scenario 2: 66% reduction in total concrete hauling trips applied
	Phase I-I: On-Site Crushing & Recycling	2.09	20.37	0.71	0.67	3,158	43	135794	62	Specific to Scenario 2 only (operation of crusher)
	Maximum lb/day Year 2014 (WITH onsite crushing):	***10.95***	***82.06***	***32.26***	***3.75***	***11958.68***				
	Year 2015									
E,F	Phase I-E: Below Grade Footing Demo	3.26	22.16	2.08	1.32	3,294	15	49407	22	Scenario 2: 66% reduction in total concrete hauling trips applied
E,F	Phase I-F: Asphalt & Concrete Removal	3.69	28.97	7.75	1.37	4,000	10	39996	18	Scenario 2: 66% reduction in total concrete hauling trips applied
E,G,H, I	Phase I-G: Underground Utility and UST Removal	3.26	22.16	2.08	1.32	3,294	15	49407	22	Scenario 2: 66% reduction in total concrete hauling trips applied
E,G,H, I	Phase I-H: Tree Removal/Grubbing	2.33	18.24	7.97	0.78	2,994	15	44910	20	Same as Scenario 1 (no change)
E,G,H, I	Phase I-I: On-Site Crushing & Recycling	1.99	18.18	0.64	0.6	3,157	10	31571	14	Specific to Scenario 2 only (operation of crusher)
	Max Phase 1 in Year 2015 (WITH onsite crushing):	***10.84***	***80.74***	***12.77***	***4.02***	***12738.66***				
									474	

CalEEMod Version: CalEEMod.2011.1.1 Date: 4/3/2013

Phase1-A-PreDemo

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			
			58		

1.3 User Entered Comments

Construction Phase - Source: Conceptual Demolition Schedule, Clevland Wrecking Company, 3/11/13

Off-road Equipment - Cut and cap utilities work assumed to include limited use of saw and 1 excavator

Off-road Equipment - Assume soft demo work uses light equipment such as a saw and sweeper. Loader based on assumed trucking of mixed C&D.

Project Characteristics -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					

2014	1.72	12.05	9.44	0.02	0.07	0.80	0.86	0.00	0.80	0.80	0.00	1,537.80	0.00	0.15	0.00	1,541.01
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	1.72	12.05	9.44	0.02	0.00	0.80	0.80	0.00	0.80	0.80	0.00	1,537.80	0.00	0.15	0.00	1,541.01
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase I-A: Pre-Demolition - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.69	12.02	9.15	0.02		0.79	0.79		0.79	0.79		1,488.26		0.15		1,491.42
Total	**1.69**	**12.02**	**9.15**	**0.02**		**0.79**	**0.79**		**0.79**	**0.79**		**1,488.26**		**0.15**		**1,491.42**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.03	0.29	0.00	0.07	0.00	0.07	0.00	0.00	0.00		49.54		0.00		49.60
Total	**0.03**	**0.03**	**0.29**	**0.00**	**0.07**	**0.00**	**0.07**	**0.00**	**0.00**	**0.00**		**49.54**		**0.00**		**49.60**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.69	12.02	9.15	0.02		0.79	0.79		0.79	0.79	0.00	1,488.26		0.15		1,491.42
Total	**1.69**	**12.02**	**9.15**	**0.02**		**0.79**	**0.79**		**0.79**	**0.79**	**0.00**	**1,488.26**		**0.15**		**1,491.42**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.03	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00		49.54		0.00		49.60
Total	**0.03**	**0.03**	**0.29**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**49.54**		**0.00**		**49.60**

CalEEMod Version: CalEEMod.2011.1.1 Date: 4/4/2013

Sutter_Phase1-B-SoftDemo

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			
			58		

1.3 User Entered Comments

Project Characteristics -

Construction Phase - Source: Conceptual Demolition Schedule, Clevland Wrecking Company, 3/11/13

Off-road Equipment - Cut and cap utilities work assumed to include limited use of saw and 1 excavator

Off-road Equipment - Assume soft demo work uses light equipment such as a saw and sweeper. Loader based on assumed trucking of mixed C&D.

Trips and VMT - Total trips and trip length per Conceptual Demo Work Plan, 3/2013

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Year	lb/day										lb/day					
2014	2.03	12.34	10.82	0.02	7.35	0.87	8.22	0.01	0.87	0.89	0.00	1,558.86	0.00	0.17	0.00	1,562.46
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	2.03	12.34	10.82	0.02	4.23	0.87	5.10	0.01	0.87	0.89	0.00	1,558.86	0.00	0.17	0.00	1,562.46
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase I-B: Soft Demolition & Interior Recycling - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.21	0.00	4.21	0.00	0.00	0.00						0.00
Off-Road	1.73	10.23	8.25	0.01		0.82	0.82		0.82	0.82		1,161.81		0.15		1,165.06
Total	**1.73**	**10.23**	**8.25**	**0.01**	**4.21**	**0.82**	**5.03**	**0.00**	**0.82**	**0.82**		**1,161.81**		**0.15**		**1,165.06**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.25	2.07	2.10	0.00	3.03	0.06	3.08	0.01	0.06	0.07		317.79		0.01		318.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.05	0.04	0.47	0.00	0.10	0.00	0.11	0.00	0.00	0.01		79.26		0.00		79.35
Total	**0.30**	**2.11**	**2.57**	**0.00**	**3.13**	**0.06**	**3.19**	**0.01**	**0.06**	**0.08**		**397.05**		**0.01**		**397.40**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.21	0.00	4.21	0.00	0.00	0.00						0.00
Off-Road	1.73	10.23	8.25	0.01		0.82	0.82		0.82	0.82	0.00	1,161.81		0.15		1,165.06
Total	**1.73**	**10.23**	**8.25**	**0.01**	**4.21**	**0.82**	**5.03**	**0.00**	**0.82**	**0.82**	**0.00**	**1,161.81**		**0.15**		**1,165.06**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.25	2.07	2.10	0.00	0.01	0.06	0.07	0.01	0.06	0.07		317.79		0.01		318.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.05	0.04	0.47	0.00	0.00	0.00	0.01	0.00	0.00	0.01		79.26		0.00		79.35
Total	**0.30**	**2.11**	**2.57**	**0.00**	**0.01**	**0.06**	**0.08**	**0.01**	**0.06**	**0.08**		**397.05**		**0.01**		**397.40**

CalEEMod Version: CalEEMod.2011.1.1 Date: 4/3/2013

Sutter_Phase1-C-AboveGradeDemo

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6	**Precipitation Freq (Days)**	58		

1.3 User Entered Comments

Project Characteristics -

Construction Phase - Source: Conceptual Demolition Schedule, Clevland Wrecking Company, 3/11/13

Off-road Equipment - Cut and cap utilities work assumed to include limited use of saw and 1 excavator

Off-road Equipment - Equipment assumptions per Conceptual Demo Work Plan, 3/2013

Demolition -

Trips and VMT - Total trips and Trip Lengths per Conceptual Demo Work Plan, 3/2013

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	9.81	69.66	56.57	0.10	69.70	3.25	72.95	0.08	3.25	3.34	0.00	10,007.76	0.00	0.81	0.00	10,024.79
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	9.81	69.66	56.57	0.10	33.98	3.25	37.23	0.08	3.25	3.34	0.00	10,007.76	0.00	0.81	0.00	10,024.79
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase I-C: Above-Grade Demo - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					33.90	0.00	33.90	0.00	0.00	0.00						0.00
Off-Road	7.96	55.43	40.66	0.08		2.86	2.86		2.86	2.86		7,567.59		0.71		7,582.53
Total	**7.96**	**55.43**	**40.66**	**0.08**	**33.90**	**2.86**	**36.76**	**0.00**	**2.86**	**2.86**		**7,567.59**		**0.71**		**7,582.53**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.68	14.09	14.28	0.02	35.43	0.38	35.82	0.07	0.38	0.45		2,162.74		0.09		2,164.53
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.17	0.14	1.63	0.00	0.37	0.01	0.37	0.01	0.01	0.02		277.43		0.01		277.73
Total	**1.85**	**14.23**	**15.91**	**0.02**	**35.80**	**0.39**	**36.19**	**0.08**	**0.39**	**0.47**		**2,440.17**		**0.10**		**2,442.26**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					33.90	0.00	33.90	0.00	0.00	0.00						0.00
Off-Road	7.96	55.43	40.66	0.08		2.86	2.86		2.86	2.86	0.00	7,567.59		0.71		7,582.53
Total	**7.96**	**55.43**	**40.66**	**0.08**	**33.90**	**2.86**	**36.76**	**0.00**	**2.86**	**2.86**	**0.00**	**7,567.59**		**0.71**		**7,582.53**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.68	14.09	14.28	0.02	0.07	0.38	0.45	0.07	0.38	0.45		2,162.74		0.09		2,164.53
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.17	0.14	1.63	0.00	0.01	0.01	0.02	0.01	0.01	0.02		277.43		0.01		277.73
Total	**1.85**	**14.23**	**15.91**	**0.02**	**0.08**	**0.39**	**0.47**	**0.08**	**0.39**	**0.47**		**2,440.17**		**0.10**		**2,442.26**

CalEEMod Version: CalEEMod.2011.1.1 Date: 4/11/2013

Sutter_Phase1-C-AboveGradeDemo-Scenario2

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			
			58		

1.3 User Entered Comments

Project Characteristics -

Construction Phase - Source: Conceptual Demolition Schedule, Clevland Wrecking Company, 3/11/13

Off-road Equipment -

Off-road Equipment - Equipment assumptions per Conceptual Demo Work Plan, 3/2013

Trips and VMT - Total haul trips and haul trip Lengths per Conceptual Demo Work Plan, 3/2013
This model run for on-site crushing & recycling scenario.
Assumes 66% reduction in off-site concrete recycling hauling trips, compared to no on-site crushing/reuse.

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	8.86	61.69	48.50	0.09	28.52	3.04	31.55	0.04	3.04	3.08	0.00	8,784.65	0.00	0.76	0.00	8,800.67
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	8.86	61.69	48.50	0.09	12.80	3.04	15.84	0.04	3.04	3.08	0.00	8,784.65	0.00	0.76	0.00	8,800.67
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase I-C: Above-Grade Demo - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.76	0.00	12.76	0.00	0.00	0.00						0.00
Off-Road	7.96	55.43	40.66	0.08		2.86	2.86		2.86	2.86		7,567.59		0.71		7,582.53
Total	**7.96**	**55.43**	**40.66**	**0.08**	**12.76**	**2.86**	**15.62**	**0.00**	**2.86**	**2.86**		**7,567.59**		**0.71**		**7,582.53**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.73	6.12	6.20	0.01	15.39	0.17	15.56	0.03	0.17	0.20		939.64		0.04		940.41
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.17	0.14	1.63	0.00	0.37	0.01	0.37	0.01	0.01	0.02		277.43		0.01		277.73
Total	**0.90**	**6.26**	**7.83**	**0.01**	**15.76**	**0.18**	**15.93**	**0.04**	**0.18**	**0.22**		**1,217.07**		**0.05**		**1,218.14**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.76	0.00	12.76	0.00	0.00	0.00						0.00
Off-Road	7.96	55.43	40.66	0.08		2.86	2.86		2.86	2.86	0.00	7,567.59		0.71		7,582.53
Total	**7.96**	**55.43**	**40.66**	**0.08**	**12.76**	**2.86**	**15.62**	**0.00**	**2.86**	**2.86**	**0.00**	**7,567.59**		**0.71**		**7,582.53**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.73	6.12	6.20	0.01	0.03	0.17	0.20	0.03	0.17	0.20		939.64		0.04		940.41
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.17	0.14	1.63	0.00	0.01	0.01	0.02	0.01	0.01	0.02		277.43		0.01		277.73
Total	**0.90**	**6.26**	**7.83**	**0.01**	**0.04**	**0.18**	**0.22**	**0.04**	**0.18**	**0.22**		**1,217.07**		**0.05**		**1,218.14**

CalEEMod Version: CalEEMod.2011.1.1 Date: 4/3/2013

Sutter_Phase1-D-SlabGradeDemo

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			
			58		

1.3 User Entered Comments

Project Characteristics -

Construction Phase - Source: Conceptual Demolition Schedule, Clevland Wrecking Company, 3/11/13

Off-road Equipment -

Demolition -

Trips and VMT - Total trips and Trip Lengths per Conceptual Demo Work Plan, 3/2013

Land Use - 1

Off-road Equipment - Equipment type per Conceptual Demo Work Plan, 3/2013

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	3.24	27.50	12.91	0.04	8.92	0.94	9.86	0.02	0.94	0.96	0.00	4,638.04	0.00	0.28	0.00	4,643.83
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	3.24	27.50	12.91	0.04	6.99	0.94	7.93	0.02	0.94	0.96	0.00	4,638.04	0.00	0.28	0.00	4,643.83
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase 1-D: Slab on Grade Demo - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.97	0.00	6.97	0.00	0.00	0.00						0.00
Off-Road	2.86	24.58	9.69	0.04		0.86	0.86		0.86	0.86		4,145.35		0.26		4,150.72
Total	**2.86**	**24.58**	**9.69**	**0.04**	**6.97**	**0.86**	**7.83**	**0.00**	**0.86**	**0.86**		**4,145.35**		**0.26**		**4,150.72**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.34	2.89	2.93	0.00	1.88	0.08	1.96	0.01	0.08	0.09		443.15		0.02		443.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.03	0.29	0.00	0.07	0.00	0.07	0.00	0.00	0.00		49.54		0.00		49.60
Total	**0.37**	**2.92**	**3.22**	**0.00**	**1.95**	**0.08**	**2.03**	**0.01**	**0.08**	**0.09**		**492.69**		**0.02**		**493.12**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.97	0.00	6.97	0.00	0.00	0.00						0.00
Off-Road	2.86	24.58	9.69	0.04		0.86	0.86		0.86	0.86	0.00	4,145.35		0.26		4,150.72
Total	**2.86**	**24.58**	**9.69**	**0.04**	**6.97**	**0.86**	**7.83**	**0.00**	**0.86**	**0.86**	**0.00**	**4,145.35**		**0.26**		**4,150.72**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.34	2.89	2.93	0.00	0.01	0.08	0.09	0.01	0.08	0.09		443.15		0.02		443.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.03	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00		49.54		0.00		49.60
Total	**0.37**	**2.92**	**3.22**	**0.00**	**0.01**	**0.08**	**0.09**	**0.01**	**0.08**	**0.09**		**492.69**		**0.02**		**493.12**

CalEEMod Version: CalEEMod.2011.1.1 Date: 4/11/2013

Sutter_Phase1-D-SlabOnGradeDemo-Scenario2

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			
			58		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - Source: Conceptual Demolition Schedule, Clevland Wrecking Company, 3/11/13

Off-road Equipment - Equipment type per Conceptual Demo Work Plan, 3/2013

Off-road Equipment -

Trips and VMT - Total haul trips and Hauling Trip Lengths adjusted based on total demolished material to be hauled, reduced 66% in on-site crushing scenario

Demolition - Total demolished material to be hauled reduced 66% in on-site crushing scenario

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	3.01	25.59	10.98	0.04	3.08	0.89	3.96	0.01	0.89	0.90	0.00	4,345.75	0.00	0.26	0.00	4,351.30
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	3.01	25.59	10.98	0.04	2.38	0.89	3.27	0.01	0.89	0.90	0.00	4,345.75	0.00	0.26	0.00	4,351.30
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase 1-D: Slab on Grade Demo - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.37	0.00	2.37	0.00	0.00	0.00						0.00
Off-Road	2.86	24.58	9.69	0.04		0.86	0.86		0.86	0.86		4,145.35		0.26		4,150.72
Total	**2.86**	**24.58**	**9.69**	**0.04**	**2.37**	**0.86**	**3.23**	**0.00**	**0.86**	**0.86**		**4,145.35**		**0.26**		**4,150.72**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.12	0.98	1.00	0.00	0.64	0.03	0.67	0.00	0.03	0.03		150.86		0.01		150.99
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.03	0.29	0.00	0.07	0.00	0.07	0.00	0.00	0.00		49.54		0.00		49.60
Total	**0.15**	**1.01**	**1.29**	**0.00**	**0.71**	**0.03**	**0.74**	**0.00**	**0.03**	**0.03**		**200.40**		**0.01**		**200.59**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.37	0.00	2.37	0.00	0.00	0.00						0.00
Off-Road	2.86	24.58	9.69	0.04		0.86	0.86		0.86	0.86	0.00	4,145.35		0.26		4,150.72
Total	**2.86**	**24.58**	**9.69**	**0.04**	**2.37**	**0.86**	**3.23**	**0.00**	**0.86**	**0.86**	**0.00**	**4,145.35**		**0.26**		**4,150.72**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.12	0.98	1.00	0.00	0.00	0.03	0.03	0.00	0.03	0.03		150.86		0.01		150.99
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.03	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00		49.54		0.00		49.60
Total	**0.15**	**1.01**	**1.29**	**0.00**	**0.00**	**0.03**	**0.03**	**0.00**	**0.03**	**0.03**		**200.40**		**0.01**		**200.59**

CalEEMod Version: CalEEMod.2011.1.1 Date: 4/3/2013

Sutter_Phase1-E-BelowGradeDemo

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			
			58		

1.3 User Entered Comments

Construction Phase - Source: Sutter Memorial Park Neighborhood Draft EIR Project Phasing Outline.
Off-road Equipment - Source: Conceptual Demolition Work Plan for Sutter Memorial Hospital, March 2013

Project Characteristics -

Land Use - -

Off-road Equipment - Equipment type and number per Conceptual Demo Work Plan, 3/2013

Demolition -

Trips and VMT - Total trips and trip length per Concpetual Demo Work Plan, 3/2013

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2011	4.34	30.93	20.80	0.04	1.62	2.02	3.64	0.01	2.02	2.02	0.00	3,333.41	0.00	0.38	0.00	3,341.47
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2011	4.34	30.93	20.80	0.04	1.12	2.02	3.14	0.01	2.02	2.02	0.00	3,333.41	0.00	0.38	0.00	3,341.47
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase I-E: Below Grade Footing Demo - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.12	0.00	1.12	0.00	0.00	0.00						0.00
Off-Road	4.19	30.27	19.40	0.03		2.00	2.00		2.00	2.00		3,158.88		0.37		3,166.72
Total	**4.19**	**30.27**	**19.40**	**0.03**	**1.12**	**2.00**	**3.12**	**0.00**	**2.00**	**2.00**		**3,158.88**		**0.37**		**3,166.72**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.07	0.59	0.63	0.00	0.37	0.02	0.39	0.00	0.02	0.02		68.90		0.00		68.97
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.08	0.07	0.78	0.00	0.13	0.00	0.13	0.00	0.00	0.01		105.64		0.01		105.78
Total	**0.15**	**0.66**	**1.41**	**0.00**	**0.50**	**0.02**	**0.52**	**0.00**	**0.02**	**0.03**		**174.54**		**0.01**		**174.75**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.12	0.00	1.12	0.00	0.00	0.00						0.00
Off-Road	4.19	30.27	19.40	0.03		2.00	2.00		2.00	2.00	0.00	3,158.88		0.37		3,166.72
Total	**4.19**	**30.27**	**19.40**	**0.03**	**1.12**	**2.00**	**3.12**	**0.00**	**2.00**	**2.00**	**0.00**	**3,158.88**		**0.37**		**3,166.72**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.07	0.59	0.63	0.00	0.00	0.02	0.02	0.00	0.02	0.02		68.90		0.00		68.97
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.08	0.07	0.78	0.00	0.00	0.00	0.01	0.00	0.00	0.01		105.64		0.01		105.78
Total	**0.15**	**0.66**	**1.41**	**0.00**	**0.00**	**0.02**	**0.03**	**0.00**	**0.02**	**0.03**		**174.54**		**0.01**		**174.75**

CalEEMod Version: CalEEMod.2011.1.1 Date: 4/11/2013

Sutter_Phase1-E-BelowGradeDemo-Scenario2

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			
			58		

1.3 User Entered Comments

Project Characteristics -

Land Use - -

Construction Phase - Source: Conceptual Demo Work Plan, 3/2013

Off-road Equipment - Equipment type and number per Conceptual Demo Work Plan, 3/2013

Off-road Equipment - Source: Conceptual Demolition Work Plan for Sutter Memorial Hospital, March 2013

Trips and VMT - Total trips and trip length per Concpetual Demo Work Plan, 3/2013, adjusted based on 66% less hauling in on-site crushing scenario

Demolition -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	3.26	22.16	19.92	0.03	0.76	1.32	2.08	0.01	1.32	1.32	0.00	3,287.64	0.00	0.29	0.00	3,293.78
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	3.26	22.16	19.92	0.03	0.51	1.32	1.83	0.01	1.32	1.32	0.00	3,287.64	0.00	0.29	0.00	3,293.78
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase I-E: Below Grade Footing Demo - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.51	0.00	0.51	0.00	0.00	0.00						0.00
Off-Road	3.18	21.92	19.20	0.03		1.31	1.31		1.31	1.31		3,158.88		0.29		3,164.90
Total	**3.18**	**21.92**	**19.20**	**0.03**	**0.51**	**1.31**	**1.82**	**0.00**	**1.31**	**1.31**		**3,158.88**		**0.29**		**3,164.90**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.02	0.19	0.19	0.00	0.13	0.01	0.13	0.00	0.01	0.01		32.05		0.00		32.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.06	0.05	0.53	0.00	0.13	0.00	0.13	0.00	0.00	0.01		96.70		0.00		96.80
Total	**0.08**	**0.24**	**0.72**	**0.00**	**0.26**	**0.01**	**0.26**	**0.00**	**0.01**	**0.02**		**128.75**		**0.00**		**128.88**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.51	0.00	0.51	0.00	0.00	0.00						0.00
Off-Road	3.18	21.92	19.20	0.03		1.31	1.31		1.31	1.31	0.00	3,158.88		0.29		3,164.90
Total	**3.18**	**21.92**	**19.20**	**0.03**	**0.51**	**1.31**	**1.82**	**0.00**	**1.31**	**1.31**	**0.00**	**3,158.88**		**0.29**		**3,164.90**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.02	0.19	0.19	0.00	0.00	0.01	0.01	0.00	0.01	0.01		32.05		0.00		32.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.06	0.05	0.53	0.00	0.00	0.00	0.01	0.00	0.00	0.01		96.70		0.00		96.80
Total	**0.08**	**0.24**	**0.72**	**0.00**	**0.00**	**0.01**	**0.02**	**0.00**	**0.01**	**0.02**		**128.75**		**0.00**		**128.88**

CalEEMod Version: CalEEMod.2011.1.1 Date: 4/3/2013

Sutter_Phase1-F-AsphaltConcreteRemoval

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			
			58		

1.3 User Entered Comments

Construction Phase - Per Conceptual Demo Work Plan, 3/2013

Off-road Equipment - Source: Conceptual Demolition Work Plan for Sutter Memorial Hospital, March 2013

Off-road Equipment - Per Conceptual Demo Work Plan, 3/2013

Demolition -

Trips and VMT - Total trip and trip length per Conceptual Demo Work Plan, 3/2013

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Year	lb/day										lb/day					
2014	4.45	35.67	22.11	0.04	18.46	1.60	20.06	0.04	1.60	1.65	0.00	4,644.56	0.00	0.36	0.00	4,652.13
2015	4.15	32.94	20.66	0.04	18.46	1.45	19.91	0.04	1.45	1.50	0.00	4,651.01	0.00	0.33	0.00	4,658.01
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	4.45	35.67	22.11	0.04	15.66	1.60	17.26	0.04	1.60	1.65	0.00	4,644.56	0.00	0.36	0.00	4,652.13
2015	4.15	32.94	20.66	0.04	15.66	1.45	17.11	0.04	1.45	1.50	0.00	4,651.01	0.00	0.33	0.00	4,658.01
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase I-F: Asphalt & Concrete Removal - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.62	0.00	15.62	0.00	0.00	0.00						0.00
Off-Road	3.45	27.26	13.62	0.03		1.37	1.37		1.37	1.37		3,230.68		0.31		3,237.17
Total	**3.45**	**27.26**	**13.62**	**0.03**	**15.62**	**1.37**	**16.99**	**0.00**	**1.37**	**1.37**		**3,230.68**		**0.31**		**3,237.17**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.77	6.46	6.54	0.01	2.64	0.18	2.82	0.03	0.18	0.21		990.65		0.04		991.47
Vendor	0.21	1.93	1.66	0.00	0.13	0.06	0.19	0.01	0.06	0.07		373.68		0.01		373.89
Worker	0.03	0.03	0.29	0.00	0.07	0.00	0.07	0.00	0.00	0.00		49.54		0.00		49.60
Total	**1.01**	**8.42**	**8.49**	**0.01**	**2.84**	**0.24**	**3.08**	**0.04**	**0.24**	**0.28**		**1,413.87**		**0.05**		**1,414.96**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.62	0.00	15.62	0.00	0.00	0.00						0.00
Off-Road	3.45	27.26	13.62	0.03		1.37	1.37		1.37	1.37	0.00	3,230.68		0.31		3,237.17
Total	**3.45**	**27.26**	**13.62**	**0.03**	**15.62**	**1.37**	**16.99**	**0.00**	**1.37**	**1.37**	**0.00**	**3,230.68**		**0.31**		**3,237.17**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.77	6.46	6.54	0.01	0.03	0.18	0.21	0.03	0.18	0.21		990.65		0.04		991.47
Vendor	0.21	1.93	1.66	0.00	0.01	0.06	0.07	0.01	0.06	0.07		373.68		0.01		373.89
Worker	0.03	0.03	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00		49.54		0.00		49.60
Total	**1.01**	**8.42**	**8.49**	**0.01**	**0.04**	**0.24**	**0.28**	**0.04**	**0.24**	**0.28**		**1,413.87**		**0.05**		**1,414.96**

3.2 Phase I-F: Asphalt & Concrete Removal - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.62	0.00	15.62	0.00	0.00	0.00						0.00
Off-Road	3.23	25.13	13.04	0.03		1.24	1.24		1.24	1.24		3,230.68		0.29		3,236.69
Total	**3.23**	**25.13**	**13.04**	**0.03**	**15.62**	**1.24**	**16.86**	**0.00**	**1.24**	**1.24**		**3,230.68**		**0.29**		**3,236.69**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.71	6.02	5.86	0.01	2.64	0.16	2.80	0.03	0.16	0.19		997.06		0.04		997.81
Vendor	0.19	1.76	1.49	0.00	0.13	0.05	0.18	0.01	0.05	0.06		374.91		0.01		375.10
Worker	0.03	0.02	0.27	0.00	0.07	0.00	0.07	0.00	0.00	0.00		48.35		0.00		48.40
Total	**0.93**	**7.80**	**7.62**	**0.01**	**2.84**	**0.21**	**3.05**	**0.04**	**0.21**	**0.25**		**1,420.32**		**0.05**		**1,421.31**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.62	0.00	15.62	0.00	0.00	0.00						0.00
Off-Road	3.23	25.13	13.04	0.03		1.24	1.24		1.24	1.24	0.00	3,230.68		0.29		3,236.69
Total	**3.23**	**25.13**	**13.04**	**0.03**	**15.62**	**1.24**	**16.86**	**0.00**	**1.24**	**1.24**	**0.00**	**3,230.68**		**0.29**		**3,236.69**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.71	6.02	5.86	0.01	0.03	0.16	0.19	0.03	0.16	0.19		997.06		0.04		997.81
Vendor	0.19	1.76	1.49	0.00	0.01	0.05	0.06	0.01	0.05	0.06		374.91		0.01		375.10
Worker	0.03	0.02	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00		48.35		0.00		48.40
Total	**0.93**	**7.80**	**7.62**	**0.01**	**0.04**	**0.21**	**0.25**	**0.04**	**0.21**	**0.25**		**1,420.32**		**0.05**		**1,421.31**

CalEEMod Version: CalEEMod.2011.1.1 Date: 4/11/2013

Sutter_Phase1-F-AsphaltConcretePavingRemoval-Scenario2

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			
			58		

1.3 User Entered Comments

Construction Phase - Per Conceptual Demo Work Plan, 3/2013

Off-road Equipment - Per Conceptual Demo Work Plan, 3/2013

Off-road Equipment - Source: Conceptual Demolition Work Plan for Sutter Memorial Hospital, March 2013

Trips and VMT - Total haul trips and haul trip lengths per Conceptual Demo Work Plan, 3/2013, reduced by 66% due to on-site crushing/reuse

Demolition - Adjusted debris tonnage due to on-site crushing, reuse

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Year	lb/day										lb/day					
2014	3.94	31.41	17.79	0.04	6.40	1.48	7.89	0.02	1.48	1.51	0.00	3,990.82	0.00	0.34	0.00	3,997.86
2015	3.69	28.97	16.79	0.04	6.40	1.35	7.75	0.02	1.35	1.37	0.00	3,993.05	0.00	0.31	0.00	3,999.55
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	3.94	31.41	17.79	0.04	5.33	1.48	6.82	0.02	1.48	1.51	0.00	3,990.82	0.00	0.34	0.00	3,997.86
2015	3.69	28.97	16.79	0.04	5.33	1.35	6.68	0.02	1.35	1.37	0.00	3,993.05	0.00	0.31	0.00	3,999.55
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase I-F: Asphalt & Concrete Removal - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.31	0.00	5.31	0.00	0.00	0.00						0.00
Off-Road	3.45	27.26	13.62	0.03		1.37	1.37		1.37	1.37		3,230.68		0.31		3,237.17
Total	**3.45**	**27.26**	**13.62**	**0.03**	**5.31**	**1.37**	**6.68**	**0.00**	**1.37**	**1.37**		**3,230.68**		**0.31**		**3,237.17**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.26	2.20	2.22	0.00	0.90	0.06	0.96	0.01	0.06	0.07		336.92		0.01		337.20
Vendor	0.21	1.93	1.66	0.00	0.13	0.06	0.19	0.01	0.06	0.07		373.68		0.01		373.89
Worker	0.03	0.03	0.29	0.00	0.07	0.00	0.07	0.00	0.00	0.00		49.54		0.00		49.60
Total	**0.50**	**4.16**	**4.17**	**0.00**	**1.10**	**0.12**	**1.22**	**0.02**	**0.12**	**0.14**		**760.14**		**0.02**		**760.69**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.31	0.00	5.31	0.00	0.00	0.00						0.00
Off-Road	3.45	27.26	13.62	0.03		1.37	1.37		1.37	1.37	0.00	3,230.68		0.31		3,237.17
Total	**3.45**	**27.26**	**13.62**	**0.03**	**5.31**	**1.37**	**6.68**	**0.00**	**1.37**	**1.37**	**0.00**	**3,230.68**		**0.31**		**3,237.17**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.26	2.20	2.22	0.00	0.01	0.06	0.07	0.01	0.06	0.07		336.92		0.01		337.20
Vendor	0.21	1.93	1.66	0.00	0.01	0.06	0.07	0.01	0.06	0.07		373.68		0.01		373.89
Worker	0.03	0.03	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00		49.54		0.00		49.60
Total	**0.50**	**4.16**	**4.17**	**0.00**	**0.02**	**0.12**	**0.14**	**0.02**	**0.12**	**0.14**		**760.14**		**0.02**		**760.69**

3.2 Phase I-F: Asphalt & Concrete Removal - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.31	0.00	5.31	0.00	0.00	0.00						0.00
Off-Road	3.23	25.13	13.04	0.03		1.24	1.24		1.24	1.24		3,230.68		0.29		3,236.69
Total	**3.23**	**25.13**	**13.04**	**0.03**	**5.31**	**1.24**	**6.55**	**0.00**	**1.24**	**1.24**		**3,230.68**		**0.29**		**3,236.69**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.24	2.05	1.99	0.00	0.90	0.05	0.95	0.01	0.05	0.06		339.10		0.01		339.36
Vendor	0.19	1.76	1.49	0.00	0.13	0.05	0.18	0.01	0.05	0.06		374.91		0.01		375.10
Worker	0.03	0.02	0.27	0.00	0.07	0.00	0.07	0.00	0.00	0.00		48.35		0.00		48.40
Total	**0.46**	**3.83**	**3.75**	**0.00**	**1.10**	**0.10**	**1.20**	**0.02**	**0.10**	**0.12**		**762.36**		**0.02**		**762.86**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.31	0.00	5.31	0.00	0.00	0.00						0.00
Off-Road	3.23	25.13	13.04	0.03		1.24	1.24		1.24	1.24	0.00	3,230.68		0.29		3,236.69
Total	**3.23**	**25.13**	**13.04**	**0.03**	**5.31**	**1.24**	**6.55**	**0.00**	**1.24**	**1.24**	**0.00**	**3,230.68**		**0.29**		**3,236.69**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.24	2.05	1.99	0.00	0.01	0.05	0.06	0.01	0.05	0.06		339.10		0.01		339.36
Vendor	0.19	1.76	1.49	0.00	0.01	0.05	0.06	0.01	0.05	0.06		374.91		0.01		375.10
Worker	0.03	0.02	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00		48.35		0.00		48.40
Total	**0.46**	**3.83**	**3.75**	**0.00**	**0.02**	**0.10**	**0.12**	**0.02**	**0.10**	**0.12**		**762.36**		**0.02**		**762.86**

CalEEMod Version: CalEEMod.2011.1.1 Date: 4/3/2013

Sutter_Phase1-G-UndergroundUtilUSTRemoval

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			
			58		

1.3 User Entered Comments

Construction Phase - Per Conceptual Demo Work Plan, 3/2013

Off-road Equipment - Source: Conceptual Demolition Work Plan for Sutter Memorial Hospital, March 2013

Off-road Equipment - Equip type and number per Conceptual Demo Work Plan, 3/2013

Demolition -

Trips and VMT - Total trips and trip length per Conceptual Demo Work Plan, 3/2013

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Year	lb/day										lb/day					
2015	3.30	22.51	20.27	0.04	1.98	1.33	3.31	0.01	1.33	1.33	0.00	3,346.68	0.00	0.29	0.00	3,352.87
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	3.30	22.51	20.27	0.04	1.50	1.33	2.82	0.01	1.33	1.33	0.00	3,346.68	0.00	0.29	0.00	3,352.87
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase I-G: Underground Utility and UST Removal - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.49	0.00	1.49	0.00	0.00	0.00						0.00
Off-Road	3.18	21.92	19.20	0.03		1.31	1.31		1.31	1.31		3,158.88		0.29		3,164.90
Total	**3.18**	**21.92**	**19.20**	**0.03**	**1.49**	**1.31**	**2.80**	**0.00**	**1.31**	**1.31**		**3,158.88**		**0.29**		**3,164.90**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.06	0.55	0.54	0.00	0.36	0.01	0.38	0.00	0.01	0.02		91.10		0.00		91.17
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.06	0.05	0.53	0.00	0.13	0.00	0.13	0.00	0.00	0.01		96.70		0.00		96.80
Total	**0.12**	**0.60**	**1.07**	**0.00**	**0.49**	**0.01**	**0.51**	**0.00**	**0.01**	**0.03**		**187.80**		**0.00**		**187.97**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.49	0.00	1.49	0.00	0.00	0.00						0.00
Off-Road	3.18	21.92	19.20	0.03		1.31	1.31		1.31	1.31	0.00	3,158.88		0.29		3,164.90
Total	**3.18**	**21.92**	**19.20**	**0.03**	**1.49**	**1.31**	**2.80**	**0.00**	**1.31**	**1.31**	**0.00**	**3,158.88**		**0.29**		**3,164.90**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.06	0.55	0.54	0.00	0.00	0.01	0.02	0.00	0.01	0.02		91.10		0.00		91.17
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.06	0.05	0.53	0.00	0.00	0.00	0.01	0.00	0.00	0.01		96.70		0.00		96.80
Total	**0.12**	**0.60**	**1.07**	**0.00**	**0.00**	**0.01**	**0.03**	**0.00**	**0.01**	**0.03**		**187.80**		**0.00**		**187.97**

CalEEMod Version: CalEEMod.2011.1.1 Date: 4/11/2013

Sutter_Phase1-G-UndgUtilsUSTRemoval-Scenario2

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6	**Precipitation Freq (Days)**	58		

1.3 User Entered Comments

Construction Phase - Per Conceptual Demo Work Plan, 3/2013

Off-road Equipment - Equip type and number per Conceptual Demo Work Plan, 3/2013

Off-road Equipment - Source: Conceptual Demolition Work Plan for Sutter Memorial Hospital, March 2013

Trips and VMT - Total haul trips and haul trip length per Conceptual Demo Work Plan, 3/2013. Reduce debris tonnage to be hauled off-site by 66% under onsite crushing/reuse scenario.

Demolition - Reduced debris tonnage 66% under on-site crushing/reuse scenario

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	3.26	22.16	19.92	0.03	0.76	1.32	2.08	0.01	1.32	1.32	0.00	3,287.64	0.00	0.29	0.00	3,293.78
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	3.26	22.16	19.92	0.03	0.51	1.32	1.83	0.01	1.32	1.32	0.00	3,287.64	0.00	0.29	0.00	3,293.78
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase I-G: Underground Utility and UST Removal - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.51	0.00	0.51	0.00	0.00	0.00						0.00
Off-Road	3.18	21.92	19.20	0.03		1.31	1.31		1.31	1.31		3,158.88		0.29		3,164.90
Total	**3.18**	**21.92**	**19.20**	**0.03**	**0.51**	**1.31**	**1.82**	**0.00**	**1.31**	**1.31**		**3,158.88**		**0.29**		**3,164.90**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.02	0.19	0.19	0.00	0.13	0.01	0.13	0.00	0.01	0.01		32.05		0.00		32.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.06	0.05	0.53	0.00	0.13	0.00	0.13	0.00	0.00	0.01		96.70		0.00		96.80
Total	**0.08**	**0.24**	**0.72**	**0.00**	**0.26**	**0.01**	**0.26**	**0.00**	**0.01**	**0.02**		**128.75**		**0.00**		**128.88**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.51	0.00	0.51	0.00	0.00	0.00						0.00
Off-Road	3.18	21.92	19.20	0.03		1.31	1.31		1.31	1.31	0.00	3,158.88		0.29		3,164.90
Total	**3.18**	**21.92**	**19.20**	**0.03**	**0.51**	**1.31**	**1.82**	**0.00**	**1.31**	**1.31**	**0.00**	**3,158.88**		**0.29**		**3,164.90**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.02	0.19	0.19	0.00	0.00	0.01	0.01	0.00	0.01	0.01		32.05		0.00		32.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.06	0.05	0.53	0.00	0.00	0.00	0.01	0.00	0.00	0.01		96.70		0.00		96.80
Total	**0.08**	**0.24**	**0.72**	**0.00**	**0.00**	**0.01**	**0.02**	**0.00**	**0.01**	**0.02**		**128.75**		**0.00**		**128.88**

CalEEMod Version: CalEEMod.2011.1.1 Date: 4/3/2013

Sutter_Phase1-H-TreeRemovalGrubbing

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			
			58		

1.3 User Entered Comments

Construction Phase - Per Conceptual Demo Work Plan, 3/2013

Off-road Equipment - Source: Conceptual Demolition Work Plan for Sutter Memorial Hospital, March 2013

Off-road Equipment - Per Conceptual Demo Work Plan, 3/2013

Demolition - Green waste debris to be hauled to recycling

Trips and VMT - Total trips and trip length per Conceptual Demo Work Plan, 3/2013

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Year	lb/day										lb/day					
2015	2.33	18.24	10.75	0.03	7.21	0.76	7.97	0.02	0.76	0.78	0.00	2,989.89	0.00	0.20	0.00	2,994.03
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	2.33	18.24	10.75	0.03	5.52	0.76	6.28	0.02	0.76	0.78	0.00	2,989.89	0.00	0.20	0.00	2,994.03
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase I-H: Tree Removal/Grubbing - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.50	0.00	5.50	0.00	0.00	0.00						0.00
Off-Road	2.01	15.72	8.05	0.02		0.70	0.70		0.70	0.70		2,528.21		0.18		2,531.98
Total	**2.01**	**15.72**	**8.05**	**0.02**	**5.50**	**0.70**	**6.20**	**0.00**	**0.70**	**0.70**		**2,528.21**		**0.18**		**2,531.98**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.29	2.49	2.43	0.00	1.64	0.06	1.70	0.01	0.06	0.08		413.33		0.01		413.65
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.02	0.27	0.00	0.07	0.00	0.07	0.00	0.00	0.00		48.35		0.00		48.40
Total	**0.32**	**2.51**	**2.70**	**0.00**	**1.71**	**0.06**	**1.77**	**0.01**	**0.06**	**0.08**		**461.68**		**0.01**		**462.05**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.50	0.00	5.50	0.00	0.00	0.00						0.00
Off-Road	2.01	15.72	8.05	0.02		0.70	0.70		0.70	0.70	0.00	2,528.21		0.18		2,531.98
Total	**2.01**	**15.72**	**8.05**	**0.02**	**5.50**	**0.70**	**6.20**	**0.00**	**0.70**	**0.70**	**0.00**	**2,528.21**		**0.18**		**2,531.98**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.29	2.49	2.43	0.00	0.01	0.06	0.08	0.01	0.06	0.08		413.33		0.01		413.65
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.02	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00		48.35		0.00		48.40
Total	**0.32**	**2.51**	**2.70**	**0.00**	**0.01**	**0.06**	**0.08**	**0.01**	**0.06**	**0.08**		**461.68**		**0.01**		**462.05**

CalEEMod Version: CalEEMod.2011.1.1 Date: 4/11/2013

Sutter_Phase1-OnSiteCrushing-Scenario2

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			
			58		

1.3 User Entered Comments

Construction Phase - Source: Conceptual Demo Work Plan

Off-road Equipment - Crushing equipment = KPI Model 4250 (per Conceptual Demo Work Plan).
400 HP per manufacturer specs.

Off-road Equipment - Source: Conceptual Demolition Work Plan for Sutter Memorial Hospital, March 2013

Demolition - On-Site Crushing will result in most material staying on site. Any off-site hauling will be captured in additional model runs for other demolition activities (this run only captures emissions from the on-site crusher itself).

Project Characteristics - Phase 1-I: On-Site Crushing & Recycling scenario

Land Use - -

Trips and VMT - On-Site Crushing will result in most material staying on site. Any off-site hauling will be captured in additional model runs for other demolition activities (this run only captures emissions from the on-site crusher itself).

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	2.09	20.37	6.94	0.03	0.04	0.67	0.71	0.00	0.67	0.67	0.00	3,154.06	0.00	0.19	0.00	3,158.01
2015	1.99	18.18	6.67	0.03	0.04	0.60	0.64	0.00	0.60	0.60	0.00	3,153.34	0.00	0.18	0.00	3,157.07
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	2.09	20.37	6.94	0.03	0.00	0.67	0.67	0.00	0.67	0.67	0.00	3,154.06	0.00	0.19	0.00	3,158.01
2015	1.99	18.18	6.67	0.03	0.00	0.60	0.60	0.00	0.60	0.60	0.00	3,153.34	0.00	0.18	0.00	3,157.07
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase I-I: On-Site Crushing & Recycling - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	2.07	20.35	6.76	0.03		0.67	0.67		0.67	0.67		3,124.33		0.19		3,128.26
Total	**2.07**	**20.35**	**6.76**	**0.03**	**0.00**	**0.67**	**0.67**	**0.00**	**0.67**	**0.67**		**3,124.33**		**0.19**		**3,128.26**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.18	0.00	0.04	0.00	0.04	0.00	0.00	0.00		29.72		0.00		29.76
Total	**0.02**	**0.02**	**0.18**	**0.00**	**0.04**	**0.00**	**0.04**	**0.00**	**0.00**	**0.00**		**29.72**		**0.00**		**29.76**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	2.07	20.35	6.76	0.03		0.67	0.67		0.67	0.67	0.00	3,124.33		0.19		3,128.26
Total	**2.07**	**20.35**	**6.76**	**0.03**	**0.00**	**0.67**	**0.67**	**0.00**	**0.67**	**0.67**	**0.00**	**3,124.33**		**0.19**		**3,128.26**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00		29.72		0.00		29.76
Total	**0.02**	**0.02**	**0.18**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**29.72**		**0.00**		**29.76**

3.2 Phase I-I: On-Site Crushing & Recycling - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00

Off-Road	1.97	18.16	6.51	0.03		0.60	0.60		0.60	0.60		3,124.33		0.18		3,128.03
Total	**1.97**	**18.16**	**6.51**	**0.03**	**0.00**	**0.60**	**0.60**	**0.00**	**0.60**	**0.60**		**3,124.33**		**0.18**		**3,128.03**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.01	0.16	0.00	0.04	0.00	0.04	0.00	0.00	0.00		29.01		0.00		29.04
Total	**0.02**	**0.01**	**0.16**	**0.00**	**0.04**	**0.00**	**0.04**	**0.00**	**0.00**	**0.00**		**29.01**		**0.00**		**29.04**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	1.97	18.16	6.51	0.03		0.60	0.60		0.60	0.60	0.00	3,124.33		0.18		3,128.03
Total	**1.97**	**18.16**	**6.51**	**0.03**	**0.00**	**0.60**	**0.60**	**0.00**	**0.60**	**0.60**	**0.00**	**3,124.33**		**0.18**		**3,128.03**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00		29.01		0.00		29.04
Total	**0.02**	**0.01**	**0.16**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**29.01**		**0.00**		**29.04**

CalEEMod Version: CalEEMod.2011.1.1 Date: 4/4/2013

Sutter_Phase2-RoughGrading

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			
			58		

1.3 User Entered Comments

Construction Phase - Source: Sutter Memorial Park Neighborhood Draft EIR Project Phasing Outline.

Off-road Equipment -

Off-road Equipment - Assume no more than 1 of each equip type needed for site of this size.

Grading - Size= 19.36 acres

Trips and VMT -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Year	lb/day										lb/day					
2015	6.19	49.12	27.63	0.06	6.64	2.18	8.82	3.32	2.18	5.50	0.00	6,181.24	0.00	0.55	0.00	6,192.79
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	6.19	49.12	27.63	0.06	6.52	2.18	8.70	3.32	2.18	5.50	0.00	6,181.24	0.00	0.55	0.00	6,192.79
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase II:Rough Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.51	0.00	6.51	3.31	0.00	3.31						0.00
Off-Road	6.13	49.07	27.10	0.06		2.18	2.18		2.18	2.18		6,084.54		0.55		6,095.99
Total	**6.13**	**49.07**	**27.10**	**0.06**	**6.51**	**2.18**	**8.69**	**3.31**	**2.18**	**5.49**		**6,084.54**		**0.55**		**6,095.99**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.06	0.05	0.53	0.00	0.13	0.00	0.13	0.00	0.00	0.01		96.70		0.00		96.80
Total	**0.06**	**0.05**	**0.53**	**0.00**	**0.13**	**0.00**	**0.13**	**0.00**	**0.00**	**0.01**		**96.70**		**0.00**		**96.80**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.51	0.00	6.51	3.31	0.00	3.31						0.00
Off-Road	6.13	49.07	27.10	0.06		2.18	2.18		2.18	2.18	0.00	6,084.54		0.55		6,095.99
Total	**6.13**	**49.07**	**27.10**	**0.06**	**6.51**	**2.18**	**8.69**	**3.31**	**2.18**	**5.49**	**0.00**	**6,084.54**		**0.55**		**6,095.99**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.06	0.05	0.53	0.00	0.00	0.00	0.01	0.00	0.00	0.01		96.70		0.00		96.80
Total	**0.06**	**0.05**	**0.53**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.01**		**96.70**		**0.00**		**96.80**

CalEEMod Version: CalEEMod.2011.1.1 Date: 4/4/2013

Sutter_Phase3-A-WetDryUtilities

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			
			58		

1.3 User Entered Comments

Construction Phase - Source: Sutter Memorial Park Neighborhood Project Phasing Outline.

Off-road Equipment -

Grading - Size size = 19.36 acres

Trips and VMT -

Off-road Equipment - Trenching for installation of wet & dry utilities

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Year	lb/day										lb/day					
2015	2.80	17.50	13.43	0.02	0.13	1.41	1.54	0.00	1.41	1.42	0.00	1,959.28	0.00	0.25	0.00	1,964.57
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	2.80	17.50	13.43	0.02	0.00	1.41	1.42	0.00	1.41	1.42	0.00	1,959.28	0.00	0.25	0.00	1,964.57
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase III-A-WetDryUtils - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.75	17.46	12.90	0.02		1.41	1.41		1.41	1.41		1,862.58		0.25		1,867.77
Total	**2.75**	**17.46**	**12.90**	**0.02**		**1.41**	**1.41**		**1.41**	**1.41**		**1,862.58**		**0.25**		**1,867.77**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.06	0.05	0.53	0.00	0.13	0.00	0.13	0.00	0.00	0.01		96.70		0.00		96.80
Total	**0.06**	**0.05**	**0.53**	**0.00**	**0.13**	**0.00**	**0.13**	**0.00**	**0.00**	**0.01**		**96.70**		**0.00**		**96.80**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.75	17.46	12.90	0.02		1.41	1.41		1.41	1.41	0.00	1,862.58		0.25		1,867.77
Total	**2.75**	**17.46**	**12.90**	**0.02**		**1.41**	**1.41**		**1.41**	**1.41**	**0.00**	**1,862.58**		**0.25**		**1,867.77**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.06	0.05	0.53	0.00	0.00	0.00	0.01	0.00	0.00	0.01		96.70		0.00		96.80
Total	**0.06**	**0.05**	**0.53**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.01**		**96.70**		**0.00**		**96.80**

CalEEMod Version: CalEEMod.2011.1.1 Date: 4/4/2013

Sutter_Phase3-B-Roadways

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			
			58		

1.3 User Entered Comments

Construction Phase - Source: Sutter Memorial Park Neighborhood Project Phasing Outline.
Alleyways may also be constructed during vertical construction.

Off-road Equipment -

Grading - Size size = 19.36 acres

Trips and VMT -

Off-road Equipment - -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	4.97	30.17	21.33	0.03	0.20	2.55	2.74	0.01	2.55	2.55	0.00	3,062.70	0.00	0.45	0.00	3,072.07
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	4.97	30.17	21.33	0.03	0.01	2.55	2.55	0.01	2.55	2.55	0.00	3,062.70	0.00	0.45	0.00	3,072.07
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase III-B-Roadways - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.89	30.10	20.54	0.03		2.54	2.54		2.54	2.54		2,917.65		0.44		2,926.87
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**4.89**	**30.10**	**20.54**	**0.03**		**2.54**	**2.54**		**2.54**	**2.54**		**2,917.65**		**0.44**		**2,926.87**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.07	0.80	0.00	0.20	0.01	0.20	0.01	0.01	0.01		145.05		0.01		145.20
Total	**0.09**	**0.07**	**0.80**	**0.00**	**0.20**	**0.01**	**0.20**	**0.01**	**0.01**	**0.01**		**145.05**		**0.01**		**145.20**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.89	30.10	20.54	0.03		2.54	2.54		2.54	2.54	0.00	2,917.65		0.44		2,926.87
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**4.89**	**30.10**	**20.54**	**0.03**		**2.54**	**2.54**		**2.54**	**2.54**	**0.00**	**2,917.65**		**0.44**		**2,926.87**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.07	0.80	0.00	0.01	0.01	0.01	0.01	0.01	0.01		145.05		0.01		145.20
Total	**0.09**	**0.07**	**0.80**	**0.00**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**		**145.05**		**0.01**		**145.20**

CalEEMod Version: CalEEMod.2011.1.1 Date: 4/4/2013

Sutter_Phase4-A-BuildingConstruction

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6	**Precipitation Freq (Days)**	58		

1.3 User Entered Comments

Construction Phase - Sutter Memorial Park Neighborhood Project Phasing Outline: start date of 10/1/2015.
Assumed 9 month building construction period.

Off-road Equipment -

Grading -

Trips and VMT -

Off-road Equipment - Equip type and numbers estimated based on construction types.

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	5.87	39.01	33.90	0.06	0.61	2.81	3.42	0.02	2.81	2.83	0.00	5,447.50	0.00	0.53	0.00	5,458.54
2016	5.35	35.70	33.51	0.06	0.61	2.49	3.10	0.02	2.49	2.51	0.00	5,436.73	0.00	0.48	0.00	5,446.75
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	5.87	39.01	33.90	0.06	0.02	2.81	2.83	0.02	2.81	2.83	0.00	5,447.50	0.00	0.53	0.00	5,458.54
2016	5.35	35.70	33.51	0.06	0.02	2.49	2.51	0.02	2.49	2.51	0.00	5,436.73	0.00	0.48	0.00	5,446.75
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase IV-A-Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.61	38.79	31.40	0.05		2.79	2.79		2.79	2.79		4,993.00		0.50		5,003.56
Total	**5.61**	**38.79**	**31.40**	**0.05**		**2.79**	**2.79**		**2.79**	**2.79**		**4,993.00**		**0.50**		**5,003.56**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.27	0.22	2.49	0.00	0.61	0.02	0.63	0.02	0.02	0.04		454.50		0.02		454.97
Total	**0.27**	**0.22**	**2.49**	**0.00**	**0.61**	**0.02**	**0.63**	**0.02**	**0.02**	**0.04**		**454.50**		**0.02**		**454.97**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.61	38.79	31.40	0.05		2.79	2.79		2.79	2.79	0.00	4,993.00		0.50		5,003.56
Total	**5.61**	**38.79**	**31.40**	**0.05**		**2.79**	**2.79**		**2.79**	**2.79**	**0.00**	**4,993.00**		**0.50**		**5,003.56**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.27	0.22	2.49	0.00	0.02	0.02	0.04	0.02	0.02	0.04		454.50		0.02		454.97
Total	**0.27**	**0.22**	**2.49**	**0.00**	**0.02**	**0.02**	**0.04**	**0.02**	**0.02**	**0.04**		**454.50**		**0.02**		**454.97**

3.2 Phase IV-A-Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.10	35.50	31.23	0.05		2.47	2.47		2.47	2.47		4,993.00		0.46		5,002.58
Total	**5.10**	**35.50**	**31.23**	**0.05**		**2.47**	**2.47**		**2.47**	**2.47**		**4,993.00**		**0.46**		**5,002.58**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.25	0.20	2.28	0.00	0.61	0.02	0.63	0.02	0.02	0.04		443.73		0.02		444.17
Total	**0.25**	**0.20**	**2.28**	**0.00**	**0.61**	**0.02**	**0.63**	**0.02**	**0.02**	**0.04**		**443.73**		**0.02**		**444.17**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.10	35.50	31.23	0.05		2.47	2.47		2.47	2.47	0.00	4,993.00		0.46		5,002.58
Total	**5.10**	**35.50**	**31.23**	**0.05**		**2.47**	**2.47**		**2.47**	**2.47**	**0.00**	**4,993.00**		**0.46**		**5,002.58**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.25	0.20	2.28	0.00	0.02	0.02	0.04	0.02	0.02	0.04		443.73		0.02		444.17
Total	**0.25**	**0.20**	**2.28**	**0.00**	**0.02**	**0.02**	**0.04**	**0.02**	**0.02**	**0.04**		**443.73**		**0.02**		**444.17**

CalEEMod Version: CalEEMod.2011.1.1 Date: 4/4/2013

Sutter_Phase4-B-BuildingArchCoating

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6	**Precipitation Freq (Days)**	58		

1.3 User Entered Comments

Construction Phase - Sutter Memorial Park Neighborhood Project Phasing Outline: start date of 10/1/2015. Assumed 9 month building construction period.

Off-road Equipment -

Grading -

Trips and VMT -

Off-road Equipment -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	36.93	2.61	2.38	0.00	0.12	0.22	0.34	0.00	0.22	0.23	0.00	368.22	0.00	0.04	0.00	369.08
2016	36.89	2.41	2.32	0.00	0.12	0.20	0.32	0.00	0.20	0.20	0.00	366.16	0.00	0.04	0.00	366.94
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	36.93	2.61	2.38	0.00	0.00	0.22	0.23	0.00	0.22	0.23	0.00	368.22	0.00	0.04	0.00	369.08
2016	36.89	2.41	2.32	0.00	0.00	0.20	0.20	0.00	0.20	0.20	0.00	366.16	0.00	0.04	0.00	366.94
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase IV-B-Building-ArchCoating - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	36.48					0.00	0.00		0.00	0.00						0.00
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22		281.19		0.04		281.96

Total	**36.89**	**2.57**	**1.90**	**0.00**		**0.22**	**0.22**		**0.22**	**0.22**		**281.19**		**0.04**		**281.96**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.05	0.04	0.48	0.00	0.12	0.00	0.12	0.00	0.00	0.01		87.03		0.00		87.12
Total	**0.05**	**0.04**	**0.48**	**0.00**	**0.12**	**0.00**	**0.12**	**0.00**	**0.00**	**0.01**		**87.03**		**0.00**		**87.12**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	36.48					0.00	0.00		0.00	0.00						0.00
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22	0.00	281.19		0.04		281.96
Total	**36.89**	**2.57**	**1.90**	**0.00**		**0.22**	**0.22**		**0.22**	**0.22**	**0.00**	**281.19**		**0.04**		**281.96**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.05	0.04	0.48	0.00	0.00	0.00	0.01	0.00	0.00	0.01		87.03		0.00		87.12

Total	**0.05**	**0.04**	**0.48**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.01**		**87.03**		**0.00**		**87.12**

3.2 Phase IV-B-Building-ArchCoating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	36.48					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20		281.19		0.03		281.89
Total	**36.85**	**2.37**	**1.88**	**0.00**		**0.20**	**0.20**		**0.20**	**0.20**		**281.19**		**0.03**		**281.89**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.05	0.04	0.44	0.00	0.12	0.00	0.12	0.00	0.00	0.01		84.97		0.00		85.05
Total	**0.05**	**0.04**	**0.44**	**0.00**	**0.12**	**0.00**	**0.12**	**0.00**	**0.00**	**0.01**		**84.97**		**0.00**		**85.05**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	36.48					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20	0.00	281.19		0.03		281.89
Total	**36.85**	**2.37**	**1.88**	**0.00**		**0.20**	**0.20**		**0.20**	**0.20**	**0.00**	**281.19**		**0.03**		**281.89**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.05	0.04	0.44	0.00	0.00	0.00	0.01	0.00	0.00	0.01		84.97		0.00		85.05
Total	**0.05**	**0.04**	**0.44**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.01**		**84.97**		**0.00**		**85.05**

CalEEMod Version: CalEEMod.2011.1.1 Date: 4/4/2013

Sutter_Parks

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			
			58		

1.3 User Entered Comments

Construction Phase - Source: Sutter Memorial Park Neighborhood Project Phasing Outline.

Off-road Equipment - Source: Conceptual Demolition Work Plan for Sutter Memorial Hospital, March 2013

Off-road Equipment - Equip type and number estimated based on construction type

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					

2016	2.37	14.49	14.70	0.03	0.74	1.01	1.75	0.03	1.01	1.04	0.00	2,452.66	0.00	0.20	0.00	2,456.91
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	2.37	14.49	14.70	0.03	0.03	1.01	1.04	0.03	1.01	1.04	0.00	2,452.66	0.00	0.20	0.00	2,456.91
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase V: Parks and Open Spaces - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.95	12.67	11.10	0.02		0.94	0.94		0.94	0.94		1,632.65		0.17		1,636.30
Total	**1.95**	**12.67**	**11.10**	**0.02**		**0.94**	**0.94**		**0.94**	**0.94**		**1,632.65**		**0.17**		**1,636.30**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.17	1.62	1.32	0.00	0.13	0.05	0.18	0.01	0.05	0.06		376.27		0.01		376.45
Worker	0.25	0.20	2.28	0.00	0.61	0.02	0.63	0.02	0.02	0.04		443.73		0.02		444.17
Total	**0.42**	**1.82**	**3.60**	**0.00**	**0.74**	**0.07**	**0.81**	**0.03**	**0.07**	**0.10**		**820.00**		**0.03**		**820.62**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.95	12.67	11.10	0.02		0.94	0.94		0.94	0.94	0.00	1,632.65		0.17		1,636.30
Total	**1.95**	**12.67**	**11.10**	**0.02**		**0.94**	**0.94**		**0.94**	**0.94**	**0.00**	**1,632.65**		**0.17**		**1,636.30**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.17	1.62	1.32	0.00	0.01	0.05	0.06	0.01	0.05	0.06		376.27		0.01		376.45
Worker	0.25	0.20	2.28	0.00	0.02	0.02	0.04	0.02	0.02	0.04		443.73		0.02		444.17
Total	**0.42**	**1.82**	**3.60**	**0.00**	**0.03**	**0.07**	**0.10**	**0.03**	**0.07**	**0.10**		**820.00**		**0.03**		**820.62**

CalEEMod Version: CalEEMod.2011.1.1

Date: 7/10/2013

Sutter_ProposedProject_Operations

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			
			58		

1.3 User Entered Comments

Project Characteristics - Operational Year = 2017 (consistent with construction phasing 2014-2016)

Land Use - Lot acreages from Project Description. 5,000 sq ft "mixed-use" retail parcel assumed to be "shopping center" use in Traffic Study, strip mall is closest equivalent subtype.

Construction Phase - No construction phasing assumed - Operational Model Run only

Off-road Equipment - n/a

Off-road Equipment - n/a

Trips and VMT -

Demolition -

Vehicle Trips - Wkday trip rates adjusted based on Kittleson traffic study trip generation: 10.32 per du, 193.8 per 1,000 sf

Energy Use -

Land Use Change -

Water And Wastewater - City of Sac residential water use rates = 400 gals day total indoor outdoor. (assume 60% outdoor, 40% indoor)

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.29	0.01	0.95	0.00		0.00	0.01		0.00	0.01	0.00	1.53	1.53	0.00	0.00	1.57
Energy	0.02	0.21	0.09	0.00		0.00	0.02		0.00	0.02	0.00	476.11	476.11	0.02	0.01	479.28
Mobile	1.72	3.20	14.34	0.03	2.51	0.13	2.63	0.11	0.13	0.23	0.00	2,183.69	2,183.69	0.09	0.00	2,185.67
Waste						0.00	0.00		0.00	0.00	25.47	0.00	25.47	1.51	0.00	57.09
Water						0.00	0.00		0.00	0.00	0.00	20.39	20.39	0.24	0.01	27.26
Total	**3.03**	**3.42**	**15.38**	**0.03**	**2.51**	**0.13**	**2.66**	**0.11**	**0.13**	**0.26**	**25.47**	**2,681.72**	**2,707.19**	**1.86**	**0.02**	**2,750.87**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.29	0.01	0.95	0.00		0.00	0.01		0.00	0.01	0.00	1.53	1.53	0.00	0.00	1.57
Energy	0.02	0.21	0.09	0.00		0.00	0.02		0.00	0.02	0.00	476.11	476.11	0.02	0.01	479.28
Mobile	1.72	3.20	14.34	0.03	2.51	0.13	2.63	0.11	0.13	0.23	0.00	2,183.69	2,183.69	0.09	0.00	2,185.67
Waste						0.00	0.00		0.00	0.00	25.47	0.00	25.47	1.51	0.00	57.09
Water						0.00	0.00		0.00	0.00	0.00	20.39	20.39	0.24	0.01	27.26
Total	**3.03**	**3.42**	**15.38**	**0.03**	**2.51**	**0.13**	**2.66**	**0.11**	**0.13**	**0.26**	**25.47**	**2,681.72**	**2,707.19**	**1.86**	**0.02**	**2,750.87**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.72	3.20	14.34	0.03	2.51	0.13	2.63	0.11	0.13	0.23	0.00	2,183.69	2,183.69	0.09	0.00	2,185.67
Unmitigated	1.72	3.20	14.34	0.03	2.51	0.13	2.63	0.11	0.13	0.23	0.00	2,183.69	2,183.69	0.09	0.00	2,185.67
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	969.00	969.00	969.00	1,534,156	1,534,156
Single Family Housing	1,290.00	1,290.00	1290.00	3,564,364	3,564,364
Total	2,259.00	2,259.00	2,259.00	5,098,520	5,098,520

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Strip Mall	10.80	7.30	7.30	16.60	64.40	19.00
Single Family Housing	10.80	7.30	7.50	32.90	18.00	49.10

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	232.13	232.13	0.01	0.00	233.81
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	232.13	232.13	0.01	0.00	233.81
NaturalGas Mitigated	0.02	0.21	0.09	0.00		0.00	0.02		0.00	0.02	0.00	243.98	243.98	0.00	0.00	245.46
NaturalGas Unmitigated	0.02	0.21	0.09	0.00		0.00	0.02		0.00	0.02	0.00	243.98	243.98	0.00	0.00	245.46
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Single Family Housing	4.54371e+006	0.02	0.21	0.09	0.00		0.00	0.02		0.00	0.02	0.00	242.47	242.47	0.00	0.00	243.95
Strip Mall	28250	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.51	1.51	0.00	0.00	1.52
Total		**0.02**	**0.21**	**0.09**	**0.00**		**0.00**	**0.02**		**0.00**	**0.02**	**0.00**	**243.98**	**243.98**	**0.00**	**0.00**	**245.47**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Single Family Housing	4.54371e+006	0.02	0.21	0.09	0.00		0.00	0.02		0.00	0.02	0.00	242.47	242.47	0.00	0.00	243.95
Strip Mall	28250	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.51	1.51	0.00	0.00	1.52
Total		**0.02**	**0.21**	**0.09**	**0.00**		**0.00**	**0.02**		**0.00**	**0.02**	**0.00**	**243.98**	**243.98**	**0.00**	**0.00**	**245.47**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Single Family Housing	856,824.00					215.80	0.01	0.00	217.36
Strip Mall	64,850.00					16.33	0.00	0.00	16.45
Total						**232.13**	**0.01**	**0.00**	**233.81**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Single Family Housing	856824					215.80	0.01	0.00	217.36
Strip Mall	64850					16.33	0.00	0.00	16.45
Total						**232.13**	**0.01**	**0.00**	**233.81**

6.0 Area Detail

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Mitigated	1.29	0.01	0.95	0.00		0.00	0.01		0.00	0.01	0.00	1.53	1.53	0.00	0.00	1.57
Unmitigated	1.29	0.01	0.95	0.00		0.00	0.01		0.00	0.01	0.00	1.53	1.53	0.00	0.00	1.57
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.36					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.90					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.03	0.01	0.95	0.00		0.00	0.01		0.00	0.01	0.00	1.53	1.53	0.00	0.00	1.57
Total	**1.29**	**0.01**	**0.95**	**0.00**		**0.00**	**0.01**		**0.00**	**0.01**	**0.00**	**1.53**	**1.53**	**0.00**	**0.00**	**1.57**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.36					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.90					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.03	0.01	0.95	0.00		0.00	0.01		0.00	0.01	0.00	1.53	1.53	0.00	0.00	1.57
Total	**1.29**	**0.01**	**0.95**	**0.00**		**0.00**	**0.01**		**0.00**	**0.01**	**0.00**	**1.53**	**1.53**	**0.00**	**0.00**	**1.57**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					20.39	0.24	0.01	27.26

Unmitigated					20.39	0.24	0.01	27.26
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Single Family Housing	7.3 / 10.95					19.68	0.22	0.01	26.22
Strip Mall	0.370363 / 0.226996					0.71	0.01	0.00	1.04
Total						**20.39**	**0.23**	**0.01**	**27.26**

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Single Family Housing	7.3 / 10.95					19.68	0.22	0.01	26.22
Strip Mall	0.370363 / 0.226996					0.71	0.01	0.00	1.04
Total						**20.39**	**0.23**	**0.01**	**27.26**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					25.47	1.51	0.00	57.09
Unmitigated					25.47	1.51	0.00	57.09
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Single Family Housing	120.24					24.41	1.44	0.00	54.70
Strip Mall	5.25					1.07	0.06	0.00	2.39
Total						**25.48**	**1.50**	**0.00**	**57.09**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Single Family Housing	120.24					24.41	1.44	0.00	54.70
Strip Mall	5.25					1.07	0.06	0.00	2.39
Total						**25.48**	**1.50**	**0.00**	**57.09**

CalEEMod Version: CalEEMod.2011.1.1

Date: 7/10/2013

Sutter_ProposedProject_Operations

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	125	Dwelling Unit
Strip Mall	5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			
			58		

1.3 User Entered Comments

Project Characteristics - Operational Year = 2017 (consistent with construction phasing 2014-2016)

Land Use - Lot acreages from Project Description. 5,000 sq ft "mixed-use" retail parcel assumed to be "shopping center" use in Traffic Study, strip mall is closest equivalent subtype.

Construction Phase - No construction phasing assumed - Operational Model Run only

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Demolition -

Vehicle Trips - Wkday trip rates adjusted based on Kittleson traffic study trip generation: 10.32 per du, 193.8 per 1,000 sf

Energy Use -

Land Use Change -

Water And Wastewater - City of Sac residential water use rates = 400 gals day total indoor outdoor. (assume 60% outdoor, 40% indoor)

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.21	0.12	10.54	0.00		0.00	0.06		0.00	0.06	0.00	18.79		0.02	0.00	19.19
Energy	0.14	1.15	0.49	0.01		0.00	0.09		0.00	0.09		1,473.64		0.03	0.03	1,482.60
Mobile	10.37	17.24	79.68	0.15	16.87	0.71	17.58	0.58	0.71	1.28		14,256.77		0.58		14,268.95
Total	**17.72**	**18.51**	**90.71**	**0.16**	**16.87**	**0.71**	**17.73**	**0.58**	**0.71**	**1.43**	**0.00**	**15,749.20**		**0.63**	**0.03**	**15,770.74**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.21	0.12	10.54	0.00		0.00	0.06		0.00	0.06	0.00	18.79		0.02	0.00	19.19
Energy	0.14	1.15	0.49	0.01		0.00	0.09		0.00	0.09		1,473.64		0.03	0.03	1,482.60
Mobile	10.37	17.24	79.68	0.15	16.87	0.71	17.58	0.58	0.71	1.28		14,256.77		0.58		14,268.95
Total	**17.72**	**18.51**	**90.71**	**0.16**	**16.87**	**0.71**	**17.73**	**0.58**	**0.71**	**1.43**	**0.00**	**15,749.20**		**0.63**	**0.03**	**15,770.74**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.37	17.24	79.68	0.15	16.87	0.71	17.58	0.58	0.71	1.28		14,256.77		0.58		14,268.95
Unmitigated	10.37	17.24	79.68	0.15	16.87	0.71	17.58	0.58	0.71	1.28		14,256.77		0.58		14,268.95
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate	Unmitigated	Mitigated

Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	969.00	969.00	969.00	1,534,156	1,534,156
Single Family Housing	1,290.00	1,290.00	1290.00	3,564,364	3,564,364
Total	2,259.00	2,259.00	2,259.00	5,098,520	5,098,520

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Strip Mall	10.80	7.30	7.30	16.60	64.40	19.00
Single Family Housing	10.80	7.30	7.50	32.90	18.00	49.10

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.14	1.15	0.49	0.01		0.00	0.09		0.00	0.09		1,473.64		0.03	0.03	1,482.60
NaturalGas Unmitigated	0.14	1.15	0.49	0.01		0.00	0.09		0.00	0.09		1,473.64		0.03	0.03	1,482.60
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Single Family Housing	12448.5	0.13	1.15	0.49	0.01		0.00	0.09		0.00	0.09		1,464.53		0.03	0.03	1,473.44
Strip Mall	77.3973	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		9.11		0.00	0.00	9.16
Total		**0.13**	**1.16**	**0.50**	**0.01**		**0.00**	**0.09**		**0.00**	**0.09**		**1,473.64**		**0.03**	**0.03**	**1,482.60**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Land Use	kBTU	lb/day										lb/day					
Single Family Housing	12.4485	0.13	1.15	0.49	0.01		0.00	0.09		0.00	0.09		1,464.53		0.03	0.03	1,473.44
Strip Mall	0.0773973	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		9.11		0.00	0.00	9.16
Total		**0.13**	**1.16**	**0.50**	**0.01**		**0.00**	**0.09**		**0.00**	**0.09**		**1,473.64**		**0.03**	**0.03**	**1,482.60**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.21	0.12	10.54	0.00		0.00	0.06		0.00	0.06	0.00	18.79		0.02	0.00	19.19
Unmitigated	7.21	0.12	10.54	0.00		0.00	0.06		0.00	0.06	0.00	18.79		0.02	0.00	19.19
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.96					0.00	0.00		0.00	0.00						0.00
Consumer Products	4.92					0.00	0.00		0.00	0.00						0.00
Hearth	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00
Landscaping	0.33	0.12	10.54	0.00		0.00	0.06		0.00	0.06		18.79		0.02		19.19
Total	**7.21**	**0.12**	**10.54**	**0.00**		**0.00**	**0.06**		**0.00**	**0.06**	**0.00**	**18.79**		**0.02**	**0.00**	**19.19**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.96					0.00	0.00		0.00	0.00						0.00
Consumer Products	4.92					0.00	0.00		0.00	0.00						0.00

Hearth	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00
Landscaping	0.33	0.12	10.54	0.00		0.00	0.06		0.00	0.06		18.79		0.02		19.19
Total	**7.21**	**0.12**	**10.54**	**0.00**		**0.00**	**0.06**		**0.00**	**0.06**	**0.00**	**18.79**		**0.02**	**0.00**	**19.19**

Appendix D

List of Federal Endangered and Threatened Species

U.S. Fish & Wildlife Service

Sacramento Fish & Wildlife Office

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 130702125059

Database Last Updated: September 18, 2011

Quad Lists

Listed Species

Invertebrates

Branchinecta lynchi
vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus
Critical habitat, valley elderberry longhorn beetle (X)
valley elderberry longhorn beetle (T)

Lepidurus packardi
vernal pool tadpole shrimp (E)

Fish

Acipenser medirostris
green sturgeon (T) (NMFS)

Hypomesus transpacificus
delta smelt (T)

Oncorhynchus mykiss
Central Valley steelhead (T) (NMFS)
Critical habitat, Central Valley steelhead (X) (NMFS)

Oncorhynchus tshawytscha
Central Valley spring-run chinook salmon (T) (NMFS)
Critical Habitat, Central Valley spring-run chinook (X) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Ambystoma californiense
California tiger salamander, central population (T)

Rana draytonii
California red-legged frog (T)

Reptiles

Thamnophis gigas
giant garter snake (T)

Quads Containing Listed, Proposed or Candidate Species:

SACRAMENTO EAST (512C)

County Lists

Sacramento County

Listed Species

Invertebrates

Apodemia mormo langei
Lange's metalmark butterfly (E)

Branchinecta conservatio
Conservancy fairy shrimp (E)

Branchinecta lynchi
Critical habitat, vernal pool fairy shrimp (X)
vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus
Critical habitat, valley elderberry longhorn beetle (X)
valley elderberry longhorn beetle (T)

Elaphrus viridis
delta green ground beetle (T)

Lepidurus packardi
Critical habitat, vernal pool tadpole shrimp (X)
vernal pool tadpole shrimp (E)

Fish

Acipenser medirostris
green sturgeon (T) (NMFS)

Hypomesus transpacificus
Critical habitat, delta smelt (X)
delta smelt (T)

Oncorhynchus mykiss
Central Valley steelhead (T) (NMFS)
Critical habitat, Central Valley steelhead (X) (NMFS)

Oncorhynchus tshawytscha
Central Valley spring-run chinook salmon (T) (NMFS)
Critical Habitat, Central Valley spring-run chinook (X) (NMFS)
Critical habitat, winter-run chinook salmon (X) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Ambystoma californiense
California tiger salamander, central population (T)
Critical habitat, CA tiger salamander, central population (X)

Rana draytonii
California red-legged frog (T)

Reptiles

Thamnophis gigas

giant garter snake (T)

Birds

Charadrius alexandrinus nivosus
western snowy plover (T)

Rallus longirostris obsoletus
California clapper rail (E)

Sternula antillarum (=Sterna, =albifrons) browni
California least tern (E)

Vireo bellii pusillus
Least Bell's vireo (E)

Mammals

Reithrodontomys raviventris
salt marsh harvest mouse (E)

Sylvilagus bachmani riparius
riparian brush rabbit (E)

Vulpes macrotis mutica
San Joaquin kit fox (E)

Plants

Arctostaphylos myrtifolia
Ione manzanita (T)

Calystegia stebbinsii
Stebbins's morning-glory (E)

Castilleja campestris ssp. succulenta
Critical habitat, succulent (=fleshy) owl's-clover (X)
succulent (=fleshy) owl's-clover (T)

Ceanothus roderickii
Pine Hill ceanothus (E)

Cordylanthus mollis ssp. mollis
soft bird's-beak (E)

Cordylanthus palmatus
palmate-bracted bird's-beak (E)

Eriogonum apricum var. apricum
Ione buckwheat (E)

Appendix E

Climate Action Plan Checklist

Community Development Department
300 Richards Boulevard 3rd Floor Sacramento, CA 95811
Help Line: (916) 264-5011
www.cityofsacramento.org/dsd

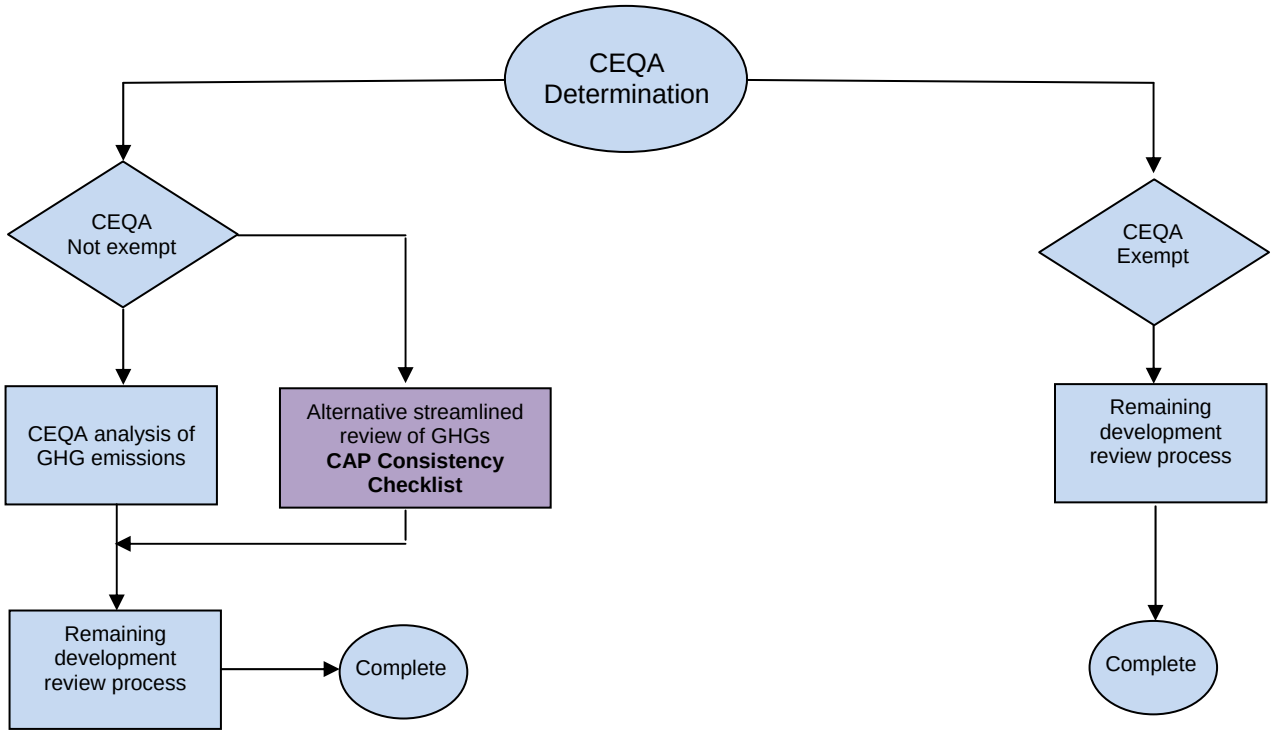
CLIMATE ACTION PLAN – CONSISTENCY REVIEW CHECKLIST

The purpose of the Climate Action Plan Consistency Review Checklist (CAP Consistency Review Checklist) is to provide a streamlined review process for proposed new development projects which are subject to discretionary review and trigger environmental review pursuant to the California Environmental Quality Act (CEQA).

CEQA Guidelines require the analysis of greenhouse gas (GHG) emissions and potential climate change impacts from new development. The Sacramento Climate Action Plan qualifies under section 15183.5 of the CEQA Guidelines as a plan for the reduction of GHG emissions for use in cumulative impact analysis pertaining to development projects. This allows projects that demonstrate consistency with the CAP to be eligible for this streamlining procedure. Projects that demonstrate consistency with the CAP and the Sacramento 2030 General Plan may be able to answer "No additional significant environmental effect" in the City's initial study checklist. Projects that do not demonstrate consistency may, at the City's discretion, prepare a more comprehensive project-specific analysis of GHG emissions consistent with CEQA requirements. (See FAQ about the CAP Consistency Review Checklist for more details.)

The diagram below shows the context for the CAP Consistency Review Checklist within the planning review process framework.

Streamlined Review of GHG Emissions in Development Projects



Community Development Department
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CLIMATE ACTION PLAN – CONSISTENCY REVIEW CHECKLIST

Application Submittal Requirements

1. The CAP Consistency Review Checklist is required only for proposed new development projects which are subject to CEQA review (non-exempt projects)
2. If required, the CAP Consistency Review Checklist must be submitted in addition to the basic set of requirements set forth in the Universal Application and the Planning Application Submittal Matrix.
3. The applicant shall work with staff to meet the requirements of this checklist. These requirements will be reflected in the conditions of approval and/or mitigation measures.
4. All conditions of approval and mitigation measures from this checklist shall be shown on full-size sheets for building plan check submittals.

Application Information

Project Number: Sutter Park Neighborhood (P12-031)

Address of Property: 5151 F Street (Sutter Memorial Hospital)

Was a special consultant retained to complete this checklist? X Yes No. If yes, complete following

Consultant Name*: Erik de Kok, Senior Planner/Project Manager, AICP

Company: Ascent Environmental, Inc.

Phone: (916) 444-7301 E-Mail: erik.dekok@ascentenvironmental.com

CITY OF SACRAMENTO
Community Development
Building and Maintaining a Great Community.

Community Development Department
300 Richards Boulevard 3rd Floor Sacramento, CA 95811
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CAP Consistency Checklist Form for Projects that are Not Exempt from CEQA

Checklist Item (Check the appropriate box, and provide explanation for your answer).	Yes	No*
1. Is the proposed project substantially consistent with the City's over-all goals for land use and urban form, allowable floor area ratio (FAR) and/or density standards in the City's 2030 General Plan, as it currently exists?	X	

Please explain how proposed project compares to 2030 General Plan with respect to density standards, FAR, land use and urban form. (See directions for filling out CAP Checklist)

The current land use for the project site is a hospital and associated medical facilities, and the site is currently designated as Public/Quasi Public which allows the hospital use. The surrounding neighborhood is currently designated in the 2030 General Plan as Traditional Neighborhood Low Density (3-8 dwelling units per net acre, or du/na).

Land uses in Sutter Park Neighborhood Project (proposed project) would include up to 125 dwelling units, 5,000 square feet of commercial/mixed-use, and parks and open space. A General Plan amendment is included as part of the requested entitlements to change the land use and urban form designation from Public/Quasi Public to Traditional Neighborhood Low Density (3-8 du/na). The requested General Plan amendment would conform to the surrounding neighborhood, and the proposed land uses represent a similar mix of land use and intensity as the surrounding neighborhood. In addition, the closure of Sutter Memorial Hospital would not be likely to eliminate existing jobs or services to the community but would rather relocate them to other facilities in the area (e.g., Sutter Medical Center Sacramento, located in the East Sacramento / Midtown area), thereby retaining employment and medical services in relatively close proximity to existing neighborhoods served by Sutter Memorial Hospital.

The proposed project is consistent with numerous General Plan policies that support the City's overall goals for livability, smart growth and sustainability, including (but not limited to): LU 1.1.5 (Infill Development), LU 2.1.2 (Protect Established Neighborhoods), LU 2.7.6 (Walkable Blocks), LU 4.1.3 (Walkable Neighborhoods), LU 4.1.4 (Alley Access), Connections to Open Space (LU 4.1.7), LU 4.3.1 (Traditional Neighborhood Protection), LU 4.3.5 (Density Regulations for Mixed-Density Development Projects), M 1.3.1 (Grid Network), M 1.3.4 (Barrier Removal for Accessibility), M 2.1.5 (Continuous Pedestrian Network), M 2.1.8 (Housing and Destination Connections), M 4.2.2 (Pedestrian and Bicycle-Friendly Streets), and M 4.3.1 (Neighborhood Traffic Management).

Therefore, the proposed project is substantially consistent with the City's overall goals for land use and urban form and density standards in the 2030 General Plan, and is therefore consistent with the assumptions used to estimate GHG emissions and reductions applicable to new development that is approved consistent with the General Plan.

	Yes	No*	NA
2. Would the project reduce average vehicle miles traveled (VMT) per capita of the proposed residents, employees, and/or visitors to the project by a minimum of 35% compared to the statewide average?	X		

Please explain how proposed project meets this requirement. If "not applicable", explain why this was not required. If project does not meet this requirement, see Directions for filling out CAP Consistency Review Checklist for alternatives to meeting checklist requirements.

The proposed project site is shown within the green area on Exhibit 1 in the Checklist Directions ("City of Sacramento Daily VMT/Capita, 2008 Base Year"). The proposed project includes primarily new residences that are of similar character, density and intensity of use as the surrounding neighborhood, as noted above under Question 1. Therefore, VMT/capita for the project would be at least 35 percent less than the statewide average, and would be consistent with CAP Action 1.1.1. No further analysis is required, per the guidance in the Checklist Directions.

*If "No", equivalent or better GHG reduction must be demonstrated as part of the project, and incorporated into conditions of approval.

Note: Requirements from this checklist should be incorporated into the conditions of approval, and shown on the full-size plans submitted for building plan check.

Checklist Item (Check the appropriate box, and provide explanation for your answer).	Yes	NA
3. Would the project incorporate traffic calming measures? (CAP Action 2.2.1) *(Examples of traffic calming measures include, but are not limited to: curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers.)*	X	

Please explain how the proposed project meets this requirement (list traffic calming measures). If "not applicable", explain why traffic calming measures were not required.

The proposed project would include a number of traffic calming features that would help to reduce traffic speeds and improve pedestrian safety and walkability. The Circulation Master Plan Design Principles (Section 5.2) in the Sutter Park Neighborhood PUD Guidelines sets specific design principles that will contribute to traffic calming. These include:

- Reduce VMT and associated GHG emissions by promoting walkability to neighborhood amenities.
- Provide abundant opportunities for walking and bicycling through the provision of short block lengths, sidewalks, alleys and paseos to shorten travel distances.
- Reinforce the pedestrian-friendly nature of roadways and trail systems with tree canopied walkways and inviting architecture and lighting palettes.

- Provide an extension of the existing circulation system. New streets connect to the existing community to create a consistent street scene with convenient access for motorists and pedestrians.
- Provide traffic calming and discourage neighborhood cut-through traffic from the larger neighborhood with staggered intersections, stop sign and crosswalks.

Section 5.34 also contains a conceptual description of specific project traffic calming features: "Traffic control elements include items such as strategic use of stop signs, narrow streets, staggering intersections, crosswalks, and directional signage."

Therefore, the proposed project is consistent with CAP Action 2.1.1.

	Yes	NA
4. Would the project incorporate pedestrian facilities and connections to public transportation consistent with the City's Pedestrian Master Plan? (CAP Action 2.2.1)	X	

Please explain how the proposed project meets this requirement. If "not applicable", explain why this was not required.

In accordance with the Pedestrian Review Guide found in Appendix A to the City's adopted Pedestrian Master Plan, the pedestrian environment for the proposed project was assessed according to the 4 criteria listed in the Guide. The proposed project would meet all criteria, and therefore would be considered consistent with CAP Action 2.2.1. Details are summarized for each of the criteria below.

a. Resource Material Requirements: The proposed project includes a street pattern and connections that would provide adequate integration with the surrounding East Sacramento neighborhood. All new streets in the Project would be consistent with the City's Design & Procedures Manual, Pedestrian-Friendly Street Standards, and Standard Specifications. The proposed project would be consistent with the applicable policies of the 2030 General Plan related to pedestrian facilities and connections. These include LU 1.1.5 (Infill Development), LU 2.7.6 (Walkable Blocks), LU 4.1.3 (Walkable Neighborhoods), LU 4.1.4 (Alley Access), Connections to Open Space (LU 4.1.7), M 1.3.1 (Grid Network), M 1.3.4 (Barrier Removal for Accessibility), M 2.1.5 (Continuous Pedestrian Network), M 2.1.8 (Housing and Destination Connections), and M 4.2.2 (Pedestrian and Bicycle-Friendly Streets). The proposed project is therefore consistent with this criterion.

b. Determine the Project's Pedestrian "Smart Growth" Score: The Pedestrian Smart Growth Scorecard was completed for the proposed project (attached). The proposed project achieves an overall score of 3, and therefore is considered consistent with this Pedestrian Master Plan criterion.

c. Determine Appropriate Pedestrian Accommodations: The proposed project would provide typical Basic Pedestrian Accommodations consistent with requirements for established residential areas in the City's Pedestrian-Friendly Street Standards. Some Upgraded features may be included, consistent with the traffic calming improvements described above. The proposed project is therefore consistent with this criterion.

d. Assess the Need for Additional Pedestrian Considerations: The proposed project would provide necessary on-site pedestrian improvements throughout the project, as described above. These include sidewalks, stop signs, and crosswalks and other traffic calming features. In addition, the new streets included on the site would provide connections to 51st Street on the north side of the site, thereby improving overall neighborhood pedestrian connectivity, overall walkability and improved access to shopping, parks and other amenities. The proposed project is therefore consistent with this criterion.

*If "No", equivalent or better GHG reduction must be demonstrated as part of the project and incorporated into the conditions of approval.

Note: Requirements from this checklist should be incorporated into the conditions of approval, and shown on the full-size plans submitted for building plan check.

5. Would the project incorporate bicycle facilities consistent with the City's Bikeway Master Plan, and meet or exceed minimum standards for bicycle facilities in the Zoning Code and CALGreen? (CAP Action 2.3.1)	Yes	NA
	X	

Please explain how the proposed project meets this requirement. If "not applicable", explain why this was not required.

No on-street bikeways are proposed as part of the project. However, existing Class II on-street bikeways are already located on Elvas Avenue and H Street. Planned bikeways in the area include a Class I Multi-Use Path Trail along the northeast side of Elvas Avenue from 36th Way to F Street (per 2013 SACOG Regional Bicycle, Pedestrian and Trails Master Plan; and 2010 Sacramento City/County Bikeway Master Plan).

The proposed project would provide new connections for both the project and the surrounding neighborhood to existing and planned bikeways on H and Elvas, and facilitate easy and safe biking opportunities on local streets in the East Sacramento neighborhood. Section 3.2.6 of the proposed project PUD Guidelines includes a commitment to provide bike parking along with other pedestrian amenities in proposed park and open space areas on the site.

The City's new Planning and Development Code became effective in September 2013 and supersedes the prior Zoning Code. Both the current Zoning Code and CALGreen include minimum on-site bicycle parking requirements that are tied to vehicle parking ratios. However, the new Planning & Development code provides new bike parking standards based on appropriate land use-based ratios (e.g., per dwelling unit, per 1,000 sq ft of commercial space, etc.) that are specific to contextual parking districts associated with General Plan land use

& urban form designations. The proposed project site is located within a Traditional Parking District, which has no on-site bicycle requirements for single-family, duplexes or second units, but does include minimum standards that would be applicable to the multi-family and commercial/mixed-use components of the proposed project. These new requirements will typically require more on-site bike parking, when compared to the current Zoning Code or CALGreen requirements.

Therefore, the project would be consistent with the Bikeway Master Plan, per CAP Action 2.3.1.

	Yes	No*	NA
6. For residential projects of 10 or more units, commercial projects greater than 25,000 square feet, or industrial projects greater than 100,000 square feet, would the project include on-site renewable energy systems (e.g., photovoltaic systems) that would generate at least a minimum of 15% of the project's total energy demand on-site? (CAP Actions: 3.4.1 and 3.4.2)		X	

Please explain how the proposed project meets this requirement. If "not applicable", explain why this was not required. If project does not meet requirements, see DIRECTIONS FOR FILLING OUT CAP CONSISTENCY REVIEW CHECKLIST re: alternatives to meeting checklist requirements.

The proposed project would not include on-site solar PV as part of the project description. However, in accordance with the guidance provided by the City attached to this Checklist, the proposed project would, as a condition of approval, commit to exceed the 2008 Building Energy Efficiency Standards (Title 24, Part 6 of the California Building Code) by 15 percent.

It should be noted that on January 1, 2014, the new 2013 Building Energy Efficiency Standards go into effect. Under those new standards, minimum mandatory code requirements will already exceed the 2008 standards by 20 percent for residential buildings and 25 percent for commercial buildings.

By meeting an energy efficiency performance standard that is considerably more stringent than the minimum assumptions in the CAP, in lieu of on-site renewables, equivalent or better GHG reductions would be achieved. Therefore, the alternative outlined above would result in the project maintaining consistency with the CAP.

	Yes	NA
7. Would the project (if constructed on or after January 1, 2014) comply with minimum CALGreen Tier I water efficiency standards? (CAP Action 5.1.1)	X	

Please explain how the proposed project meets this requirement. If "not applicable", explain why this was not required.

Specific CALGreen Tier 1 water efficiency measures were assumed to apply to new development in the Climate Action Plan Technical Appendix (page E-29) as follows:

- Nonresidential Buildings: 30% improvement in indoor water efficiency (compared to 2008 Plumbing

Code baseline); and outdoor potable water use reduction to a quantity that does not exceed 60% of the reference evapotranspiration rate (ETo) times the landscape area plus 1 voluntary outdoor water efficiency & conservation measure as listed in the CALGreen Nonresidential Voluntary Measures.

- Residential Buildings: 20% improvement in indoor water efficiency (compared to 2008 Plumbing Code baseline; per CALGreen Mandatory Measures), and kitchens faucets shall have a maximum flow rate of no greater than 1.5 gallons per minute; and outdoor potable water use reduction to a quantity that does not exceed 65% of ETo times the landscape area plus 2 voluntary outdoor water efficiency & conservation measures as listed in the CALGreen Residential Voluntary Measures.

The Proposed Project would comply with the above-referenced CALGreen Tier 1 Water Efficiency Measures as a condition of approval, and would therefore be consistent with CAP Action 5.1.1.

*If "No", equivalent or better GHG reduction must be demonstrated as part and incorporated into the conditions of approval.
Note: Requirements from this checklist should be incorporated into the conditions of approval, and shown on the full-size plans submitted for building plan check.

Certification

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.

Signature: _____ Date: _____

Community Development Department
300 Richards Boulevard 3rd Floor Sacramento, CA 95811
Help Line: (916) 264-5011
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DIRECTIONS FOR FILLING OUT CAP CONSISTENCY REVIEW CHECKLIST

General Plan Consistency

1. **Is the proposed project substantially consistent with the land use and urban form designation, allowable floor area ratio (FAR) and/or density standards in the City's 2030 General Plan?**

   Consistency with the General Plan land use and urban form designation, FAR and/or density standards is a key determining factor in whether or not the CAP Consistency Review procedure can be used. This is because future growth and development consistent with the General Plan was used to estimate business as usual emission forecasts, as well as emission reductions from actions that would be applicable to new development.

   Refer to the 2030 General Plan, Land Use and Urban Form Designations and Development Standards starting on page 2-29. If a project is not fully consistent with the General Plan, the project still may qualify for consistency with the CAP, but this determination will need to be closely coordinated with the City. The City will determine whether the proposed land uses under consideration could be found consistent with the growth projections and assumptions used to develop the GHG emissions inventory and projections in the CAP.

Sustainable Land Use

2. **Would the project reduce average vehicle miles traveled (VMT) per capita of the proposed residents, employees, and/or visitors to the project by a minimum of 35% compared to the statewide average? (Applicable CAP Action: 1.1.1)**

   The statewide VMT/capita in 2009 was 8,937 VMT/capita/year, which is approximately 24.5 VMT/capita/day[1,2]. A 35% reduction below the 2009 statewide average would be 5,809 VMT/capita/year, or about 15.9 VMT/capita/day.

   Steps to Determine if Proposed Project is Consistent with CAP Action 1.1.1:

   Step 1: Consult VMT/Capita Screening Map:

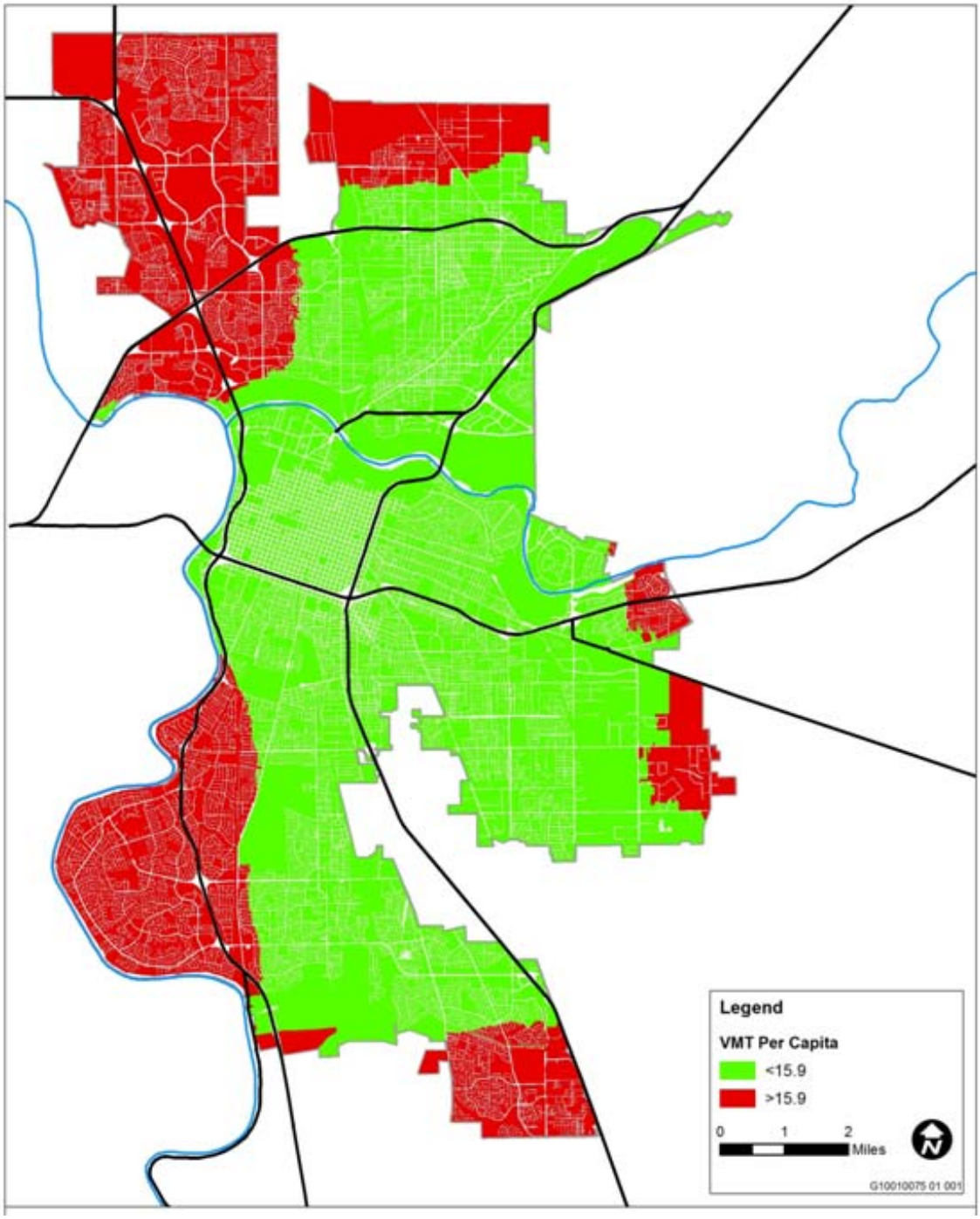
   The map below can be used as a quick screening tool to determine whether or not a proposed project is likely to meet the 35% reduction standard based on its geographic location.

   If the proposed project is located in the green area of the map, it can be assumed to have a VMT/capita/day below 16, and no further action related to VMT is necessary. If the proposed project is located within one of the red areas, or in a white area adjacent to any red parcel, it cannot be assumed to achieve the standard, and further analysis is required to show that the project is below 16 VMT/capita/day. Proceed to Step 2, and estimate the project VMT using one of the computer modeling tools below.

[1] Federal Highway Administration. 2009. Table VM-2 - Highway Statistics 2009. http://www.fhwa.dot.gov/policyinformation/statistics/2009/vm2.cfm.
[2] U.S. Census Bureau, 2005-2009 American Community Survey. http://factfinder.census.gov/servlet/ACSSAFFFacts?_event=Search&_lang=en&_sse=on&geo_id=04000US06&_state=04000US06

Community Development Department
300 Richards Boulevard 3rd Floor Sacramento, CA 95811
Help Line: (916) 264-5011
www.cityofsacramento.org/dsd

Exhibit 1: City of Sacramento Daily VMT/Capita, 2008 Base Year
Source: SACOG, SACSIM Model, 2012.



Step 2: VMT Modeling

Download one of computer modeling tools from the following links and follow the user guide for the tool that you have selected. Select the year 2020 as the year of project operation and compare the modeled VMT/capita/day with the City's standard of 15.9 VMT/capita/day. If the result of the computer modeling supports the project's consistency with the City's VMT/capita standard, then the project is considered to comply with CAP Action 1.1.1. If the project's estimated VMT/capita exceeds the City's standard of 15.9, proceed to Step 3.

California Emission Estimator Model (CalEEMod 2013.2 or most recent version)
CalEEMod is a statewide land use emissions computer model that provides a comprehensive estimate of development project criteria pollutants and GHG emissions associated with both construction and operations from a variety of land use project types.

Sketch 7 VMT Estimation Tool (Version 2.0 or most recent version)
The Sketch 7 model is a web-based, parcel-level, scenario planning tool that allows users to input land uses and project attributes such as demographic data, design, density, quality of public transit, mix of land uses, and other planning-related features. Sketch 7 estimates VMT/capita and other environmental indicators based on region-specific parameters, local land use plans and the SACSIM model. Sketch 7 also accounts for the interaction of the project's proposed land uses with the surrounding land uses.

Step 3: Additional Mitigation and Further Analysis

If the proposed project does not pass Steps 1 and 2, additional mitigation from another category (such as building energy efficiency) can be substituted as long as this GHG reduction does not "double count" GHG reductions already taken by the CAP. In other words, mitigation will be necessary to reduce GHG emissions from the project beyond what is already accounted for in the CAP (to avoid double-counting).

Step 3(a) - Determine the increment of total VMT by which the project exceeds the City's 15.9 VMT/capita/day standard. For example, if the project would result in 18 VMT/capita/day and proposes to accommodate 400 new residents, the increment that the project would exceed the City's standard would be 306,600 VMT, which equals: (18 – 15.9 VMT/capita/day) * 400 residents *365 days/year.

Step 3(b) - Convert VMT into metric tons carbon dioxide equivalent per year (MT CO_2e/year) by use of a vehicle emission factor. The City recommends using an emission factor of 0.000452 MT CO_2e/VMT, which was obtained from the California Air Resources Board's (ARB's) Mobile-Source Emission Factor Model (EMFAC) and was used to develop the City's GHG inventory in its CAP. In the above example, the project would be required to mitigate approximately 139 MT CO_2e/year through additional mitigation.

Additional mitigation may include equivalent or better GHG reduction from individual measures or a combination of:

- Exceeding energy efficiency standards of Title 24, part 6 of the California Building Code (using 2008 T24 standards as a baseline)
- Generation of greater than 15% of the project's energy on-site through installation of solar panels or other on-site renewable energy technology
- Other land use (e.g., additional amenities), transportation, bicycle, or pedestrian improvements that would reduce VMT not already accounted for in Sketch 7 modeling under Step 2.

The applicant should provide documentation (e.g., California Emissions Estimator Model [CalEEMod]) that the combination of mitigation selected would achieve the equivalent GHG emission reduction necessary to close the gap between the proposed project's VMT/capita/day and the City's standard of 15.9 VMT/capita/day. If the project applicant can present equivalent mitigation as defined by this section, the City would consider the project consistent with CAP Action 1.1.1. If the project applicant could not identify sufficient surplus mitigation to reduce equivalent project-generated GHG emissions, the project would not be consistent with CAP Action 1.1.1.

Mobility

3. Would the project incorporate traffic calming measures? (Applicable CAP Action: 2.1.1)

List the traffic calming measures that have been incorporated into the project. These may include, but are not limited to: curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers.

The project proponent and City staff should consult with staff in the Department of Public Works-Transportation Division to verify that traffic calming measures are adequate and in compliance with the City's Street Design Standards.

If the proposed project does not include any roadway or facility improvements, traffic calming measures may not apply. For example, certain infill projects may not result in on-street or transportation facility improvements because sufficient infrastructure already exists

4. Would the project incorporate pedestrian facilities and connections to public transportation consistent with the City's Pedestrian Master Plan? (Applicable CAP Action: 2.2.1)

List the pedestrian facilities and connections to public transportation that have been included in the proposed project on the Checklist. These may include, but are not limited to: sidewalks on both sides of streets, marked crosswalks, count-down signal timers, curb extensions, median islands, transit shelters, street lighting.

The project proponent and City staff should consult with Department of Public Works-Transportation Division staff to verify that pedestrian facilities are consistent with the Pedestrian Master Plan. As in the previous example, if "not applicable", an explanation shall be documented in the Checklist. The "Pedestrian Review Process Guide" (Appendix A to the Master Plan) will be used to determine consistency, as follows:

- For typical infill development projects where existing streets will serve the site (no new streets are proposed): the level of pedestrian improvements necessary to determine Pedestrian Master Plan consistency will be measured according to the "Basic, Upgrade or Premium" categories defined in Appendix A to the Pedestrian Master Plan, which are based on project location, surrounding land uses, proximity to transit, etc. If the proposed project does not include the minimum level of improvements per the assigned category for the project's location, the project will be required as a condition of approval to include appropriate features, per the approval of the Department of Public Works-Transportation Division.

- For new "greenfield" projects and/or larger infill development projects where new streets are proposed as part of the project, the following will apply:
  - "Basic, Upgrade or Premium" levels of improvement will be required based on the proposed project's location and context, where applicable, consistent with the criteria defined in the Master Plan. If the proposed project does not include the minimum level of improvements per the assigned category, the project will be required as a condition of approval to include appropriate features, per the approval of the Department of Public Works-Transportation Division.
  - The "Pedestrian Smart Growth Scorecard" (Appendix A to the Master Plan) will be required to be completed for the project, and a minimum score of 3 or better will need to be achieved. If the proposed project cannot achieve the minimum score, changes to the proposed project may be required, and/or the project may be required as a condition of approval to include certain improvements such that the average score will meet 3 or better. (Note: an Excel version of the Pedestrian Smart Growth Scorecard is available, to assist in automating the rating & scoring process)

5. Would the project incorporate bicycle facilities consistent with the City's Bikeway Master Plan, and meet or exceed minimum standards for bicycle facilities in the Zoning Code and CALGreen? (Applicable CAP Action: 2.3.1)

List the bicycle facilities that are incorporated into the proposed project on the Checklist. In addition, list bicycle facilities. These include, but are not limited to: Class I bike trails and Class II bike lanes connecting the project site to an existing bike network and transit stations, bike parking [bike racks, indoor secure bike parking, bike lockers], end-of-trip facilities at non-residential land uses [showers, lockers]).

The project proponent and City staff should consult with staff in the Transportation Division of the Department of Public Works to verify that such facilities are consistent with the Bikeway Master Plan and meet or exceed Zoning Code and CALGreen standards. Generally, the following guidelines will be used:

- If existing on-street and off-street bikeways are already present and determined to be consistent with the Bikeway Master Plan, no additional on-street bikeways will be required. Check the "not applicable" box if appropriate. However, on-site facilities shall still be required to meet or exceed minimum Zoning and CALGreen requirements.
- If not applicable, fully document the reasons why using the Checklist.
- If on-street bicycle facilities are not present or are only partially consistent with the Master Plan, the project will be required as a condition of approval to construct or pay for its fair-share of on-street and/or off-street bikeways described in the Master Plan, in addition to meeting or exceeding minimum on-site facilities.
- In some cases, a combination of new or upgraded on-street and off-street bikeways may be used to determine consistency with the Master Plan, at the discretion of the Department of Public Works-Transportation Division staff.

Energy Efficiency and Renewable Energy

6. **For residential projects of 10 or more units, commercial projects greater than 25,000 square feet, or industrial projects greater than 100,000 square feet, would the project include on-site renewable energy systems (e.g., solar photovoltaic, solar water heating etc.) that would generate at least 15% of the project's total energy demand? (CAP Actions: 3.4.1 and 3.4.2)**

For projects of the minimum size specified in this measure, a commitment in the project description or in a mitigation measure that the project shall generate a minimum of 15% of the project's energy demand on-site is sufficient to demonstrate consistency with this measure. However, the project conditions of approval or mitigation measures should specify the intended renewable energy technology to be used (e.g. solar photovoltaic, solar water heating, wind, etc.) and estimated size of the systems to meet project demand based on the project description.

"Total energy demand" refers to the energy (electricity and natural gas) consumed by the built environment (including HVAC systems, water heating systems, and lighting systems) as well as uses that are independent of the construction of buildings, such as office equipment and other plug-ins.

Applicants may estimate the total energy demand of their projects using California Emissions Estimator Model (CalEEMod 2013.2), the same software used to estimate greenhouse gas emissions. ***For CalEEMod estimates of energy demand to meet this specific requirement, the user should NOT select the "use historical" box, otherwise they will be "double-counting" emissions reductions that have already been counted***. CalEEMod outputs for electricity demand are provided in annual kWh, and natural gas demand is provided in annual kBTU.

The energy demand estimate by CalEEMod is based on two datasets:

- The California Commercial End Use Survey (CEUS);
- The Residential Appliance Saturation Survey (RASS

CalEEMod takes energy use intensity data (above) and forecasts energy demand based on climate zone, land use subtype (such as "hospital", "arena", or "apartments, mid rise"), building area, and the number of buildings or units. This is an appropriate level of analysis for use at the planning submittal stage, but it may not provide an accurate picture of actual project energy demand because it does not factor project specifics such as building design.

Therefore, the applicant is advised (but not required) to run a more comprehensive energy simulation once project-specific details are known: basic building design, square-footage, building envelope, lighting design (at least rudimentary), and the mechanical system (at least minimally zoned). Some of the energy simulation programs that are appropriate for this level of analysis include: DOE 2.2, Trace 700, and Energy Pro.

The U.S. DOE maintains a list of energy simulation programs that are available.
http://apps1.eere.energy.gov/buildings/tools_directory/subjects.cfm/pagename=subjects/pagename_menu=whole_building_analysis/pagename_submenu=energy_simulation

The applicant may then work with City staff to revise the estimate and make a final determination regarding the size of the PV system that is required.

Substitutions: Projects may substitute a quantity of energy efficiency for renewable energy, as long as the substituted GHG reduction does not "double count" GHG reductions already taken by the CAP. In other words, substitutions must reduce GHG emissions from the project beyond what is already accounted for in the CAP (to avoid double-counting).

- Additional mitigation may include equivalent or better GHG reduction from individual measures or a combination of:
- Exceeding energy efficiency standards of Title 24, part 6 of the California Building Code by 15% or better using 2008 T24 standards as a baseline. (Please note that due to more rigorous minimum energy efficiency standards, after January 1, 2014, residential projects will need to exceed the new minimum building code standards by 10% and commercial projects will need to exceed the new minimum building code by 5%).

- Other land use (e.g., additional amenities), transportation, bicycle, or pedestrian improvements that would reduce VMT not already accounted for in VMT models under Step 2.

7. Would the project comply with minimum CALGreen Tier I water efficiency standards? (CAP Action: 5.1.1)

The California Green Building Standards Code (CALGreen) includes mandatory green building measures, as well as voluntary measures that local jurisdictions may choose to adopt to achieve higher performance tiers, at either Tier 1 or Tier 2 compliance levels. Sacramento has adopted Tier 1 Water Efficiency Standards to be required on or after January 1, 2014 Currently, in order to meet the Tier 1 Water Efficiency Standards, buildings are required to implement all mandatory water efficiency and conservation measures as well as certain Tier 1 specific measures that exceed minimum mandatory measures (e.g. 30% increase in indoor water efficiency). Specific Tier 1 provisions can be found in the CALGreen Code at http://www.bsc.ca.gov/Home/CALGreen.aspx.

The City recognizes that project construction details are often not known at the environmental review stage, and it may be premature for a project proponent to identify compliance with precise requirements of CALGreen. A condition of approval requiring the project to comply with minimum CALGreen Tier 1 water efficiency and conservation standards is sufficient to demonstrate consistency with this criterion.

Planning approval of your project will include the following condition:
Project must meet CALGreen Tier 1 water efficiency and conservation standards. Copies of the appropriate CalGreen checklist (see FAQ) shall be included on the full-size sheets for building plan check submittals.

Note: Requirements from this checklist should be incorporated into the conditions of approval, and shown on the full-size plans submitted for building plan check.

Appendix F

Noise Modeling Results and Background Report

Traffic Noise Spreadsheet Calculator

Project:

Number	Segment Description and Location: Name	From	To	Existing Conditions	Existing w/ No Onsite Development Conditions	Existing w/ Construction Conditions	Δ Existing w/ Construction - Existing w/ No Onsite	Existing+Project Conditions	Δ Existing + Project - Existing	Cumulative + Project Conditions w/ 53rd Street Extension	Δ Cumulative + Project w/ 53rd - Existing	Cumulative + Project Conditions w/o 53rd Street Extension	Δ Cumulative + Project w/o 53rd - Cumulative
Summary of Net Changes													
1	F Street	53rd Street	Elvas Avenue	56.3	53.2	56.6	3.4	54.1	-2.1	54.5	-1.8	54.4	-1.9
2	F Street	52nd Street	53rd Street	55.3	52.7	52.7	0.0	53.6	-1.7	54.4	-0.9	54.5	-0.8
3	F Street	50th Street	52nd Street	53.7	50.3	50.3	0.0	51.7	-1.9	52.8	-0.8	53.1	-0.5
4	53rd Street	H Street	F Street	57.1	46.1	46.1	0.0	50.1	-7.0	51.9	-5.2	50.9	-6.2
5	52nd Street	H Street	F Street	51.0	49.8	49.8	0.0	50.1	-0.9	50.1	-0.9	50.3	-0.8
6	51st Street	H Street	F Street	49.9	48.3	48.3	0.0	50.8	0.9	51.1	1.2	51.5	1.6
7	50th Street	H Street	F Street	53.6	48.0	48.0	0.0	50.5	-3.1	50.5	-3.1	50.8	-2.8
8	Coloma Way	E Street	D Street	51.3	48.7	48.7	0.0	49.1	-2.3	49.1	-2.3	49.1	-2.3
9	Coloma Way	D Street	B Street	49.1	47.1	47.1	0.0	47.4	-1.8	47.4	-1.8	47.2	-1.9
10	D Street	Coloma Way	51st Street	49.4	49.4	49.4	0.0	50.0	0.6	50.7	1.3	50.9	1.6
11	C Street	Coloma Way	51st Street	47.0	47.0	47.0	0.0	47.5	0.6	48.6	1.7	48.6	1.7
12	51st Street	C Street	Brand Way	47.7	47.7	47.7	0.0	47.9	0.2	47.9	0.2	47.9	0.2

*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.

Traffic Noise Spreadsheet Calculator

Project: Existing Conditions

Noise Level Descriptor: Ldn
Site Conditions: Hard
Traffic Input: ADT
Traffic K-Factor:

Segment Description and Location				Input										Output				
						Distance to Directional Centerline, (feet)[4]		Traffic Distribution Characteristics							Distance to Contour, (feet)[3]			
Number	Name	From	To	ADT	Speed (mph)	Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve	% Night	Ldn, (dBA)[5,6,7]	70 dBA	65 dBA	60 dBA	55 dBA
Existing Conditions																		
1	F Street	53rd Street	Elvas Avenue	2,583	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	56.3	2	7	21	67
2	F Street	52nd Street	53rd Street	2,065	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	55.3	2	5	17	54
3	F Street	50th Street	52nd Street	1,410	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	53.7	1	4	12	37
4	53rd Street	H Street	F Street	3,132	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	57.1	3	8	26	82
5	52nd Street	H Street	F Street	773	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	51.0	1	2	6	20
6	51st Street	H Street	F Street	596	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	49.9		2	5	16
7	50th Street	H Street	F Street	1,389	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	53.6	1	4	11	36
8	Coloma Way	E Street	D Street	826	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	51.3	1	2	7	22
9	Coloma Way	D Street	B Street	497	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	49.1		1	4	13
10	D Street	Coloma Way	51st Street	528	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	49.4		1	4	14
11	C Street	Coloma Way	51st Street	301	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	47.0		1	2	8
12	51st Street	C Street	Brand Way	357	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	47.7		1	3	9

*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.

Traffic Noise Spreadsheet Calculator

Project: Existing w/ No Onsite Development Conditions

Noise Level Descriptor: Ldn
Site Conditions: Hard
Traffic Input: ADT
Traffic K-Factor:

Segment Description and Location				Input										Output				
						Distance to Directional Centerline, (feet)[4]		Traffic Distribution Characteristics							Distance to Contour, (feet)[3]			
Number	Name	From	To	ADT	Speed (mph)	Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve	% Night	Ldn, (dBA)[5,6,7]	70 dBA	65 dBA	60 dBA	55 dBA
Existing w/ No Onsite Development Conditions																		
1	F Street	53rd Street	Elvas Avenue	1,266	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	53.2	1	3	10	33
2	F Street	52nd Street	53rd Street	1,125	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	52.7	1	3	9	29
3	F Street	50th Street	52nd Street	658	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	50.3	1	2	5	17
4	53rd Street	H Street	F Street	248	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	46.1		1	2	6
5	52nd Street	H Street	F Street	585	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	49.8		2	5	15
6	51st Street	H Street	F Street	408	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	48.3		1	3	11
7	50th Street	H Street	F Street	386	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	48.0		1	3	10
8	Coloma Way	E Street	D Street	450	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	48.7		1	4	12
9	Coloma Way	D Street	B Street	309	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	47.1		1	3	8
10	D Street	Coloma Way	51st Street	528	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	49.4		1	4	14
11	C Street	Coloma Way	51st Street	301	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	47.0		1	2	8
12	51st Street	C Street	Brand Way	357	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	47.7		1	3	9

*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.

Traffic Noise Spreadsheet Calculator

Project: Existing w/ Construction Conditions

Noise Level Descriptor: Ldn
Site Conditions: Hard
Traffic Input: ADT
Traffic K-Factor:

Segment Description and Location				Input										Output				
						Distance to Directional Centerline, (feet)[4]		Traffic Distribution Characteristics							Distance to Contour, (feet)[3]			
Number	Name	From	To	ADT	Speed (mph)	Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve	% Night	Ldn, (dBA)[5,6,7]	70 dBA	65 dBA	60 dBA	55 dBA
Existing w/ Construction Conditions																		
1	F Street	53rd Street	Elvas Avenue	1,346	30	50	50	91.0%	2.0%	7.0%	80.0%	15.0%	5.0%	56.6	2	7	23	72
2	F Street	52nd Street	53rd Street	1,125	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	52.7	1	3	9	29
3	F Street	50th Street	52nd Street	658	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	50.3	1	2	5	17
4	53rd Street	H Street	F Street	248	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	46.1		1	2	6
5	52nd Street	H Street	F Street	585	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	49.8		2	5	15
6	51st Street	H Street	F Street	408	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	48.3		1	3	11
7	50th Street	H Street	F Street	386	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	48.0		1	3	10
8	Coloma Way	E Street	D Street	450	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	48.7		1	4	12
9	Coloma Way	D Street	B Street	309	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	47.1		1	3	8
10	D Street	Coloma Way	51st Street	528	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	49.4		1	4	14
11	C Street	Coloma Way	51st Street	301	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	47.0		1	2	8
12	51st Street	C Street	Brand Way	357	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	47.7		1	3	9

*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.

Traffic Noise Spreadsheet Calculator

Project: Existing+Project Conditions

Noise Level Descriptor: Ldn
Site Conditions: Hard
Traffic Input: ADT
Traffic K-Factor:

Segment Description and Location				Input										Output				
						Distance to Directional Centerline, (feet)[4]		Traffic Distribution Characteristics							Distance to Contour, (feet)[3]			
Number	Name	From	To	ADT	Speed (mph)	Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve	% Night	Ldn, (dBA)[5,6,7]	70 dBA	65 dBA	60 dBA	55 dBA
Existing+Project Conditions																		
1	F Street	53rd Street	Elvas Avenue	1,576	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	54.1	1	4	13	41
2	F Street	52nd Street	53rd Street	1,393	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	53.6	1	4	11	36
3	F Street	50th Street	52nd Street	905	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	51.7	1	2	7	24
4	53rd Street	H Street	F Street	620	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	50.1	1	2	5	16
5	52nd Street	H Street	F Street	626	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	50.1	1	2	5	16
6	51st Street	H Street	F Street	738	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	50.8	1	2	6	19
7	50th Street	H Street	F Street	675	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	50.5	1	2	6	18
8	Coloma Way	E Street	D Street	491	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	49.1		1	4	13
9	Coloma Way	D Street	B Street	330	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	47.4		1	3	9
10	D Street	Coloma Way	51st Street	611	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	50.0	1	2	5	16
11	C Street	Coloma Way	51st Street	342	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	47.5		1	3	9
12	51st Street	C Street	Brand Way	378	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	47.9		1	3	10

*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.

Traffic Noise Spreadsheet Calculator

Project: Cumulative + Project Conditions w/ 53rd Street Extension

Noise Level Descriptor: Ldn
Site Conditions: Hard
Traffic Input: ADT
Traffic K-Factor:

Segment Description and Location				Input										Output				
						Distance to Directional Centerline, (feet)[4]		Traffic Distribution Characteristics						Ldn,	Distance to Contour, (feet)[3]			
Number	Name	From	To	ADT	Speed (mph)	Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve	% Night	(dBA)[5,6,7]	70 dBA	65 dBA	60 dBA	55 dBA
Cumulative + Project Conditions w/ 53rd Street Extension																		
1	F Street	53rd Street	Elvas Avenue	1,711	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	54.5	1	4	14	45
2	F Street	52nd Street	53rd Street	1,674	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	54.4	1	4	14	44
3	F Street	50th Street	52nd Street	1,162	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	52.8	1	3	10	30
4	53rd Street	H Street	F Street	939	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	51.9	1	2	8	24
5	52nd Street	H Street	F Street	626	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	50.1	1	2	5	16
6	51st Street	H Street	F Street	782	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	51.1	1	2	6	20
7	50th Street	H Street	F Street	675	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	50.5	1	2	6	18
8	Coloma Way	E Street	D Street	491	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	49.1		1	4	13
9	Coloma Way	D Street	B Street	330	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	47.4		1	3	9
10	D Street	Coloma Way	51st Street	714	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	50.7	1	2	6	19
11	C Street	Coloma Way	51st Street	443	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	48.6		1	4	12
12	51st Street	C Street	Brand Way	378	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	47.9		1	3	10

*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.

Traffic Noise Spreadsheet Calculator

Project: Cumulative + Project Conditions w/o 53rd Street Extension

Noise Level Descriptor: Ldn
Site Conditions: Hard
Traffic Input: ADT
Traffic K-Factor:

Segment Description and Location				Input										Output				
						Distance to Directional Centerline, (feet)[4]		Traffic Distribution Characteristics						Ldn,	Distance to Contour, (feet)[3]			
Number	Name	From	To	ADT	Speed (mph)	Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve	% Night	(dBA)[5,6,7]	70 dBA	65 dBA	60 dBA	55 dBA
Cumulative + Project Conditions w/o 53rd Street Extension																		
1	F Street	53rd Street	Elvas Avenue	1,687	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	54.4	1	4	14	44
2	F Street	52nd Street	53rd Street	1,715	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	54.5	1	4	14	45
3	F Street	50th Street	52nd Street	1,244	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	53.1	1	3	10	32
4	53rd Street	H Street	F Street	753	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	50.9	1	2	6	20
5	52nd Street	H Street	F Street	647	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	50.3	1	2	5	17
6	51st Street	H Street	F Street	865	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	51.5	1	2	7	23
7	50th Street	H Street	F Street	737	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	50.8	1	2	6	19
8	Coloma Way	E Street	D Street	491	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	49.1		1	4	13
9	Coloma Way	D Street	B Street	320	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	47.2		1	3	8
10	D Street	Coloma Way	51st Street	755	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	50.9	1	2	6	20
11	C Street	Coloma Way	51st Street	443	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	48.6		1	4	12
12	51st Street	C Street	Brand Way	378	30	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	47.9		1	3	10

*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.

Citation	Reference
1	Caltrans Technical Noise Supplement. 2009 (November). Table (5-11), Pg 5-60.
2	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-26), Pg 5-60.
3	Caltrans Technical Noise Supplement. 2009 (November). Equation (2-16), Pg 2-32.
4	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-11), Pg 5-47, 48.
5	Caltrans Technical Noise Supplement. 2009 (November). Equation (2-26), Pg 2-55, 56.
6	Caltrans Technical Noise Supplement. 2009 (November). Equation (2-27), Pg 2-57.
7	Caltrans Technical Noise Supplement. 2009 (November). Pg 2-53.
8	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-7), Pg 5-45.
9	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-8), Pg 5-45.
10	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-9), Pg 5-45.
11	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-13), Pg 5-49.
12	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-14), Pg 5-49.
13	Federal Highway Administration Traffic Noise Model Technical Manual. Report No. FHWA-PD-96-010. 1998 (January). Equation (16), Pg 67
14	Federal Highway Administration Traffic Noise Model Technical Manual. Report No. FHWA-PD-96-010. 1998 (January). Equation (20), Pg 69
15	Federal Highway Administration Traffic Noise Model Technical Manual. Report No. FHWA-PD-96-010. 1998 (January). Equation (18), Pg 69

Project-Generated Construction Source Noise Prediction Model

Unmitigated

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Representative Distance	50	88
Representative Distance	100	82
Representative Distance	150	78
Nearest Residence	70	85
Mitigation Not Required	220	75

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Mounted Impact Hammer (hoe ram)	90	0.2
Excavator	85	0.4
Backhoe	80	0.4
Mounted Impact Hammer (hoe ram)	90	0.2

Ground Type	Hard
Source Height	8
Receiver Height	5
Ground Factor	0.00

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Mounted Impact Hammer (hoe ram)	83.0
Excavator	81.0
Backhoe	76.0
Mounted Impact Hammer (hoe ram)	83.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
87.5

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, January 2006.

[2] Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006.

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Introduction

The Sutter Memorial Project Site (project) is located in East Sacramento at the location of the existing Sutter Memorial Hospital on F Street. Bollard Acoustical Consultants, Inc. was retained by Stonebridge Properties to quantify existing noise conditions in the site vicinity, as well as to provide an evaluation of opportunities and constraints upon future development of the site with respect to noise. This report contains that evaluation.

Noise Fundamentals and Terminology

Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that human hearing can detect. We are generally capable of processing air pressure variations (sound) over an extremely broad dynamic range. Therefore, the measurement of sound directly in terms of pressure would require a very large and awkward range of numbers. The logarithmic treatment of these numbers – converting measured sound pressure (Pa) into sound pressure level (decibels, dB) – was developed primarily to limit the range of numbers. The decibel scale allows for several orders of magnitude in sound pressure to be expressed within a 100 dB range.

The perceived loudness of sound is dependent on many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by the A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way we perceive noise. For this reason, the A-weighted sound level has become a standard tool for environmental noise assessment. All noise levels in this report are A-weighted levels.

Table 1 and Appendix A provide definitions of acoustical terminology relevant to this study.

Table 1
Acoustical Terminology

Acoustics The science (or physics) of sound.

Ambient Noise The distinctive acoustical characteristics of a given environment consisting of all noise sources audible at a given location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.

Attenuation The reduction of noise.

A-Weighting A frequency-response filter that conditions a given sound signal to approximate human response.

CNEL Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours (10 p.m. - 7 a.m.) weighted by a factor of 10 prior to averaging.

Decibel or dB A Bel is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bel.

Frequency The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).

L_{dn} Day/Night Average Level. Similar to CNEL but with no evening weighting. The hours of 7 – 10 p.m. are considered daytime.

L_{eq} Equivalent or energy-averaged sound level.

L_{max} The highest root-mean-square (RMS) sound level measured over a given period of time.

L_n The measured sound pressure level exceeded (n) percent of the time.

Loudness A subjective term for the sensation of the magnitude of sound.

Noise Unwanted sound.

Threshold of Hearing The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB at 1,000 Hz for those with good hearing.

SEL A single-number rating indicating the total energy of a discrete noise event compressed into a 1-second time duration.

Existing Land Uses in the Project Site Vicinity

The project site currently contains the Sutter Memorial Hospital. The project site is surrounded by existing residential land uses, either immediately adjacent or across streets bordering the project site, as well as an existing medical facility located adjacent to the southeastern site boundary. Figure 1 illustrates the project site location as well as surrounding land uses.

Noise Sources Affecting the Project Area

The existing ambient noise environment in the immediate project vicinity is defined primarily by traffic on local roadways and to a lesser extent by occasional aircraft overflights and train passages. On-site activities such as vehicular movements, including delivery trucks, and mechanical equipment operations also contribute to the ambient noise environment, but in a very localized manner.

The site is approximately 10 miles southeast of the Sacramento International Airport and approximately 800 feet west of the Union Pacific Railroad tracks. Although railroad passages and aircraft overflights are plainly audible at the project site, distance and in the case of railroad noise, shielding of railroad noise by intervening residences diminishes the impact of noise from these sources at the project site.

General Ambient Noise Level Survey

To quantify the existing ambient noise environment in the project vicinity, continuous ambient noise surveys were conducted around the project site perimeter in May and June of 2011. The noise survey locations are shown on Figure 1.

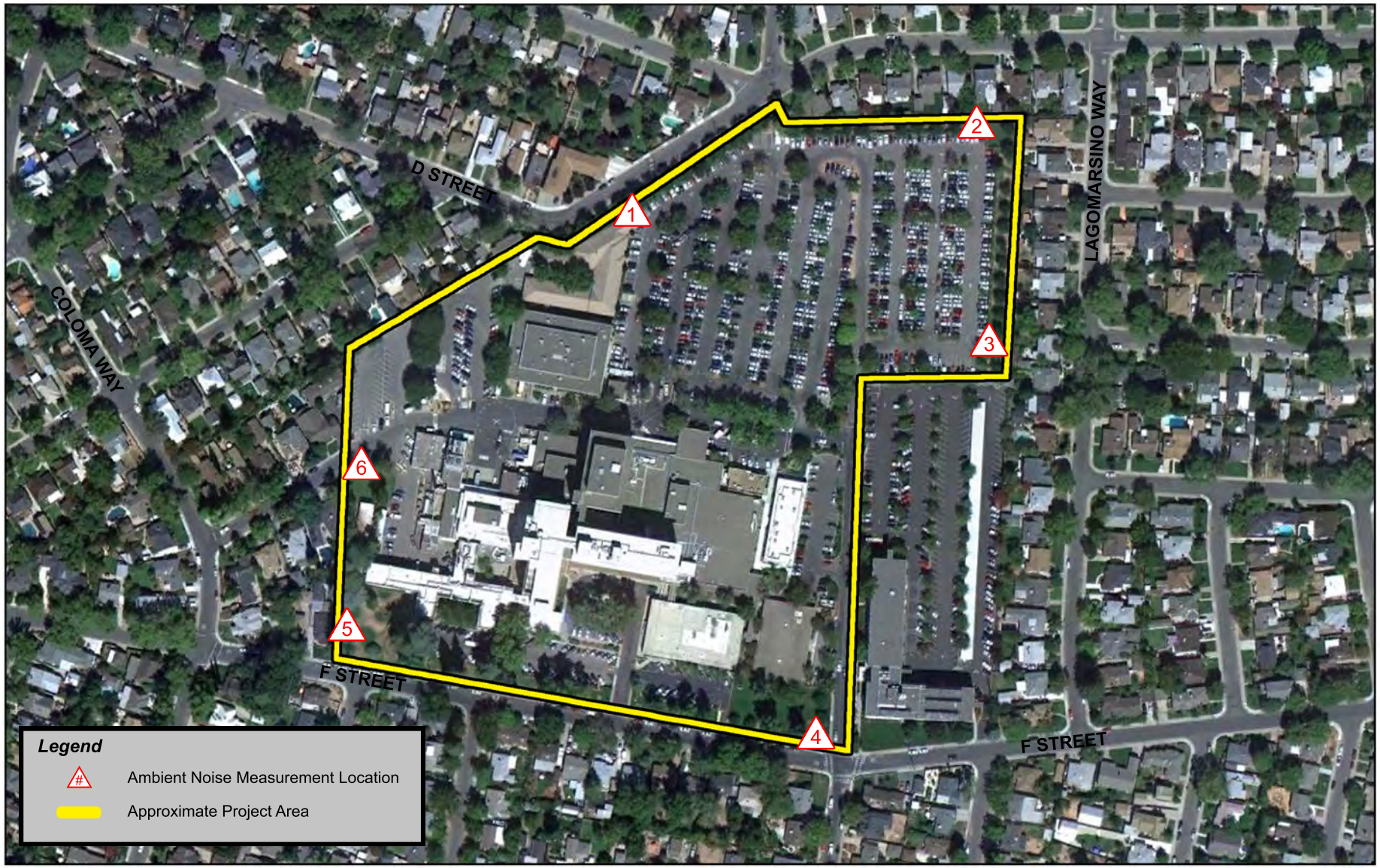
Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meters were used for the ambient noise level measurement surveys. The meters were calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

The noise level meters were programmed to record the maximum and average hourly noise levels during the survey, as well as other statistics for each hour of monitoring at each location. The maximum value, denoted L_{max}, represents the highest noise level measured. The average value, denoted L_{eq}, represents the energy average of all of the noise received by the sound level meter microphone during the monitoring period. The hourly noise level data was used to calculate the average day/night noise level (L_{dn}).

Figure 1

Sutter Hospital Re-Use - Sacramento, California

Project Location & Noise Measurement Locations



BOLLARD
Acoustical Consultants

Scale (feet)
0 150 300

A summary of the noise level measurement results is provided in Table 2. A complete listing of the 24-hour noise measurement results are provided numerically in Appendix B, and graphically in Appendix C.

Table 2
Ambient Noise Monitoring Results Summary
Sutter Memorial Project Site – Sacramento California

		Daytime		Nighttime		
Site	**Date**	**Leq**	**Lmax**	**Leq**	**Lmax**	**Ldn**
1	5/26/11	57	62-92	49	59-69	58
2	5/26/11	49	58-73	47	46-62	54
3	6/1/11	52	61-74	48	53-72	55
4	5/30/11	56	71-80	54	69-80	61
5	5/30/11	47	55-67	49	55-59	55
6	6/1/11	56	64-80	50	62-73	58

Source: Bollard Acoustical Consultants, Inc. 2011

The ambient noise survey results indicate that the measured daytime and nighttime ambient noise levels at the project site are typical for residential areas affected primarily by local traffic noise sources. With the exception of Site 4, which was located at the hospital entrance on F Street, the measured ambient noise levels were all below 60 dB L_{dn}, which is the City of Sacramento noise level standard applicable to residential land uses. The City's noise standards are discussed later in this report.

Baseline Traffic Noise Environment

To predict noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. To predict noise levels in terms of L_{dn}, the daytime and nighttime distribution of traffic must be included in the computations.

Baseline traffic volumes for the local roadways were obtained from Fehr & Peers Associates, Inc. Truck usage and vehicle speeds on the local area roadways were estimated from posted speed limits and BAC field observations.

Table 3 shows the predicted baseline traffic noise levels in terms of the Day/Night Average Level descriptor (L_{dn}) at a standardized distance of 50 feet from the centerlines of the existing project-area roadways, as well as distances to existing traffic noise contours. The extent by which existing land uses in the project vicinity are affected by existing traffic noise depends on their respective proximity to the roadways and their individual sensitivity to noise.

Table 3
Baseline Traffic Data, Noise Levels and Distances to Contours
Aspen 20 - Sacramento, California

			Distance to Ldn Contours (feet)*		
Roadway Name	**Segment Description**	**L_{dn} @ 50 Feet**	**70 dB**	**65 dB**	**60 dB**
H Street	West of Coloma Way	66	26	55	118
Coloma Way	Pico Way to Pala Way	52	3	7	16
51st Street	H Street to F Street	51	3	6	12
52nd Street	H Street to F Street	51	3	6	13
53rd Street	H Street to F Street	59	9	20	43
54th Street	H Street to F Street	49	2	4	9
55th Street	H Street to F Street	49	2	4	9
56th Street	H Street to Elvas Avenue	63	17	36	78
Elvas Avenue	F Street to C Street	63	16	35	75
F Street	Coloma Way to 53rd Street	57	7	15	33
F Street	Lagomarsino Way to 54th Street	58	8	17	37
Lagomarsino Wy	F Street to C Street	49	2	4	9
D Street	Coloma Way to Pala Way	51	3	6	13
C Street	Coloma Way to 51st Street	53	4	8	17
C Street	51st Street to Lagomarsino Way	53	3	7	16

Source: FHWA-RD-77-108 with inputs from Fehr & Peers and Bollard Acoustical Consultants.
* Distances to traffic noise contours are measured in feet from the centerlines of the roadways.

The Table 3 data indicate that, with a few exceptions, existing traffic noise levels in the project vicinity are fairly low. Along 3 of the roadways segments evaluated in Table 3 existing traffic noise levels are predicted to exceed 60 dB L_{dn}.

Criteria for Acceptable Noise Exposure

City of Sacramento 2030 General Plan

The City of Sacramento recently adopted its 2030 General Plan. The policies from the 2030 General Plan are included below.

EC 3.1.1 Exterior Noise Standards.

The City shall require noise mitigation for all development where the projected exterior noise levels exceed those shown in Table EC 1, to the extent feasible.

Table EC 1

Exterior Noise Compatibility Standards for Various Land Uses

Land Use Type	Highest Level of Noise Exposure that is Regarded as "Normally Acceptable"[a] (L_{dn}[b] or CNEL[c])
Residential–Low Density Single Family, Duplex, Mobile Homes	60 dBA[d,e]
Residential–Muti-family	65 dBA
Urban Residential Infill[f] and Mixed-Use Projects[g]	70 dBA
Transient Lodging–Motels, Hotels	65 dBA
Schools, Libraries, Churches, Hospitals, Nursing Homes	70 dBA
Auditoriums, Concert Halls, Amphitheaters	Mitigation based on site–specific study
Sports Arena, Outdoor Spectator Sports	Mitigation based on site–specific study
Playgrounds, Neighborhood Parks	70 dBA
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75 dBA
Office Buildings–Business, Commercial, and Professional	70 dBA
Industrial, Manufacturing, Utilities, Agriculture	75 dBA

Source: Governor's Office of Planning and Research, State of California General Plan Guidelines 2003, October 2003

a. As defined in the Guidelines, "Normally Acceptable" means that the "specified land use is satisfactory, based upon the assumption that any building involved is of normal conventional construction, without any special noise insulation requirements."

b. L_{dn} or Day Night Average Level is an average 24-hour noise measurement that factors in day and night noise levels.

c. CNEL or Community Noise Equivalent Level measurements are a weighted average of sound levels gathered throughout a 24-hour period.

d. dBA or A-weighted decibel scale is a measurement of noise levels.

e. The exterior noise standard for the residential area west of McClellan Airport known as McClellan Heights/Parker Homes is 65 dBA

f. With land use designations of Central Business District, Urban Neighborhood (Low, Medium, or High) Urban Center (Low or High), Urban Corridor (Low or High).

g. All mixed-use projects located anywhere in the City of Sacramento.

EC 3.1.2 Exterior Incremental Noise Standards.

The City shall require noise mitigation for all development that increases existing noise levels by more than the allowable increment shown in Table EC 2, to the extent feasible.

Table EC 2
Exterior Incremental Noise Impact Standards for Noise-Sensitive Uses (dBA)

Residences and buildings where people normally sleep[a]		Institutional land uses with primarily daytime and evening uses[b]	
Existing L_{dn}	Allowable Noise Increment	Existing Peak Hour L_{eq}	Allowable Noise Increment
45	8	45	12
50	5	50	9
55	3	55	6
60	2	60	5
65	1	65	3
70	1	70	3
75	0	75	1
80	0	80	0

Source: Sacramento General Plan

EC 3.1.3 Interior Noise Standards

The City shall require new development to include noise mitigation to assure acceptable interior noise levels appropriate to the land use type: 45 dBA L_{dn} for residential, transient lodgings, hospitals, nursing homes and other uses where people normally sleep; and 45 dBA L_{eq} (peak hour) for office buildings and similar uses.

EC 3.1.4 Interior Noise Review for Multiple, Loud Short-Term Events

In cases where new development is proposed in areas subject to frequent, high-noise events (such as aircraft over-flights, or train and truck pass-bys), the City shall evaluate noise impacts on any sensitive receptors from such events when considering whether to approve the development proposal, taking into account potential for sleep disturbance, undue annoyance, and interruption in conversation, to ensure that the proposed development is compatible within the context of its surroundings.

EC 3.1.5 Interior Vibration Standards

The City shall require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby residential and commercial uses based on the current City or Federal Transit Administration (FTA) criteria.

EC 3.1.6 Vibration Screening Distances.

The City shall require new residential and commercial projects located adjacent to major freeways, hard rail lines, or light rail lines to follow the FTA screening distance criteria.

EC 3.1.7 Vibration

The City shall require an assessment of the damage potential of vibration-induced construction activities, highways, and rail lines in close proximity to historic buildings and archaeological sites and require all feasible mitigation measures be implemented to ensure no damage would occur.

EC 3.1.8 Operational Noise

The City shall require mixed-use, commercial, and industrial projects to mitigate operational noise impacts to adjoining sensitive uses when operational noise thresholds are exceeded.

EC 3.1.9 Compatibility with Park and Recreation Uses

The City shall limit the hours of operation for parks and active recreation areas in residential areas to minimize disturbance to residences.

EC 3.1.10 Construction Noise

The City shall require development projects subject to discretionary approval to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on these uses, to the extent feasible.

EC 3.1.11 Alternatives to Sound Walls

The City shall encourage the use of design strategies and other noise reduction methods along transportation corridors in lieu of sound walls to mitigate noise impacts and enhance aesthetics.

EC 3.1.12 Residential Streets

The City shall discourage widening streets or converting streets to one-way in residential areas where the resulting increased traffic volumes would raise ambient noise levels.

EC 3.1.13 Vehicle Purchase

The City shall purchase vehicles and equipment with low noise generation and maintain them to minimize noise.

EC 3.2.1 Land Use Compatibility

The City shall limit residential development within the 65 dBA CNEL airport noise contour, or in accordance with plans prepared by the Airport Land Use Commission, and shall only approve noise-compatible land uses.

EC 3.2.2 Hazardous Noise Protection

The City shall discourage outdoor activities or uses in areas outside the 70 dBA CNEL airport noise contour where people could be exposed to hazardous noise levels.

EC 3.2.3 Cooperative Noise Reduction

The City shall work with the Sacramento County Airport Systems (SCAS) to monitor aircraft noise, implement noise-reducing operation measures (i.e., Fly Quiet, Fly Neighborly programs), and promote pilot

City of Sacramento Noise Control Ordinance

The City of Sacramento Noise Control Ordinance sets limits for exterior noise levels on designated residential property. The ordinance states that non-transportation noise shall not exceed 55 dBA during any cumulative 30-minute period in any hour during the day (7:00 a.m. to 10:00 p.m.), and 50 dBA during any cumulative 30-minute period in any hour during the night (10:00 p.m. to 7:00 a.m.). The ordinance sets somewhat higher noise limits for noise of shorter duration; however, noise shall never exceed 75 dBA in the day and 70 dBA at night. Because these criteria are not applied to transportation noise sources (transportation noise sources utilize L_{dn}-based standards), and because the project site noise environment is dominated by transportation noise sources, the only sources of noise to which these standards would be applicable would be any future non-transportation noise sources contemplated for the reuse of the project site.

Construction activities are conditionally exempt from the Noise Ordinance. Construction activities are exempt from the noise standard from 7:00 a.m. to 6:00 p.m. Monday through Saturday, and from 9:00 a.m. to 6:00 p.m. on Sunday. Noise sources due to the erection (including excavation), demolition, alteration or repair of any building or structure between the hours of 7:00 a.m. to 6:00 p.m. Monday through Saturday, and from 9:00 a.m. to 6:00 p.m. on Sunday are exempt from the noise control ordinance, provided that the operation of an internal combustion engine is equipped with suitable exhaust and intake silencers which are in good working order.

Opportunities and Constraints

The relatively low ambient noise environment in the project site vicinity provides both opportunities and constraints in terms of site reuse. Because the area would subjectively be considered fairly quiet, opportunities exist for the development of the site with compatible, noise-sensitive, land uses which are subject to the City's most restrictive noise standards (i.e. residential land uses).

Conversely, development of the site is somewhat constrained in that noise-generating land uses, such as intensive commercial/retail operations, would likely be incompatible unless extensive noise mitigation measures were included in the site design. Such measures, including the construction of noise barriers, may not be compatible with the residential nature of the project area.

The options for site development and design are numerous. From a noise standpoint, a logical approach would be to utilize noise-sensitive uses around the project site perimeter as a buffer to the existing residential neighborhood. If a more noise-generating use is envisioned, such as a park or neighborhood commercial use (restaurants or small stores), the most acoustically appropriate location for such uses would be within the interior portion of the site.

An office use on the site is relatively benign in terms of on-site noise generation. However, off-site traffic noise generation and on-site parking lot movements would require consideration to ensure that significant increases in ambient noise levels in the surrounding community would not result from such a development. Mechanical equipment associated with such a use could be mitigated through locating it within a properly treated equipment room or by shielding roof-top units by building parapets.

Conclusions

The Sutter Hospital site in Sacramento is situated in a residential neighborhood currently exposed to relatively low ambient noise levels. The reuse of the site with significant noise-generating land uses would almost certainly result in land-use incompatibility. In addition to the noise generated by on-site activities associated with future land uses developed on the site, consideration should be given to the amount of off-site traffic generated by such uses. When more specific proposals for site reuse have been developed, a more specific evaluation of potential noise impacts resulting from those proposals can, and should be prepared.

Appendix D-1

FHWA-RD-77-108 Highway Traffic Noise Prediction Model
Data Input Sheet

Project #: 2011-032 Sutter Hospital Re-Use
Description: Existing (2011)
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	H Street	West of Coloma Way	16,000	85		15	2	1	30	50	
2	Coloma Way	Pico Way to Pala Way	779	85		15	2	1	30	50	
3	51st Street	H Street to F Street	547	85		15	2	1	30	50	
4	52nd Street	H Street to F Street	550	85		15	2	1	30	50	
5	53rd Street	H Street to F Street	3,454	85		15	2	1	30	50	
6	54th Street	H Street to F Street	323	85		15	2	1	30	50	
7	55th Street	H Street to F Street	348	85		15	2	1	30	50	
8	56th Street	H Street to Elvas Avenue	8,545	85		15	2	1	30	50	
9	Elvas Avenue	F Street to C Street	8,131	85		15	2	1	30	50	
10	F Street	Coloma Way to 53rd Street	2,324	85		15	2	1	30	50	
11	F Street	Lagomarsino Way to 54th Street	2,807	85		15	2	1	30	50	
12	Lagomarsino Way	F Street to C Street	361	85		15	2	1	30	50	
13	D Street	Coloma Way to Pala Way	569	85		15	2	1	30	50	
14	C Street	Coloma Way to 51st Street	876	85		15	2	1	30	50	
15	C Street	51st Street to Lagomarsino Way	806	85		15	2	1	30	50	

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Appendix D-2

FHWA-RD-77-108 Highway Traffic Noise Prediction Model
Predicted Levels

Project #: 2011-032 Sutter Hospital Re-Use
Description: Existing (2011)
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway Name	Segment Description	Autos	Medium Trucks	Heavy Trucks	Total
1	H Street	West of Coloma Way	63.0	56.7	60.8	66
2	Coloma Way	Pico Way to Pala Way	49.8	43.6	47.7	52
3	51st Street	H Street to F Street	48.3	42.0	46.1	51
4	52nd Street	H Street to F Street	48.3	42.0	46.2	51
5	53rd Street	H Street to F Street	56.3	50.0	54.1	59
6	54th Street	H Street to F Street	46.0	39.7	43.8	49
7	55th Street	H Street to F Street	46.3	40.1	44.2	49
8	56th Street	H Street to Elvas Avenue	60.2	54.0	58.1	63
9	Elvas Avenue	F Street to C Street	60.0	53.7	57.9	63
10	F Street	Coloma Way to 53rd Street	54.6	48.3	52.4	57
11	F Street	Lagomarsino Way to 54th Street	55.4	49.1	53.2	58
12	Lagomarsino Way	F Street to C Street	46.5	40.2	44.3	49
13	D Street	Coloma Way to Pala Way	48.5	42.2	46.3	51
14	C Street	Coloma Way to 51st Street	50.3	44.1	48.2	53
15	C Street	51st Street to Lagomarsino Way	50.0	43.7	47.8	53

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Appendix D-3

FHWA-RD-77-108 Highway Traffic Noise Prediction Model
Noise Contour Output

Project #: 2011-032 Sutter Hospital Re-Use
Description: Existing (2011)
Ldn/CNEL: Ldn
Hard/Soft: Soft

			------- Distances to Traffic Noise Contours -------				
Segment	Roadway Name	Segment Description	75	70	65	60	55
1	H Street	West of Coloma Way	12	26	55	118	255
2	Coloma Way	Pico Way to Pala Way	2	3	7	16	34
3	51st Street	H Street to F Street	1	3	6	12	27
4	52nd Street	H Street to F Street	1	3	6	13	27
5	53rd Street	H Street to F Street	4	9	20	43	92
6	54th Street	H Street to F Street	1	2	4	9	19
7	55th Street	H Street to F Street	1	2	4	9	20
8	56th Street	H Street to Elvas Avenue	8	17	36	78	168
9	Elvas Avenue	F Street to C Street	8	16	35	75	163
10	F Street	Coloma Way to 53rd Street	3	7	15	33	71
11	F Street	Lagomarsino Way to 54th Street	4	8	17	37	80
12	Lagomarsino Way	F Street to C Street	1	2	4	9	20
13	D Street	Coloma Way to Pala Way	1	3	6	13	28
14	C Street	Coloma Way to 51st Street	2	4	8	17	37
15	C Street	51st Street to Lagomarsino Way	2	3	7	16	35

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Appendix G

Traffic Report Appendices

Appendix 1 Traffic Count Data

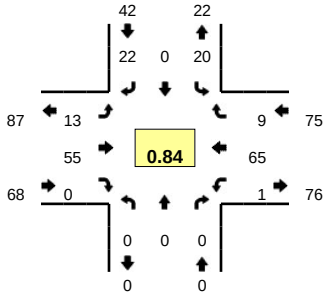
Type of peak hour being reported: Intersection Peak

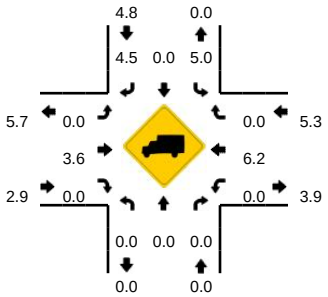
Method for determining peak hour: Total Entering Volume

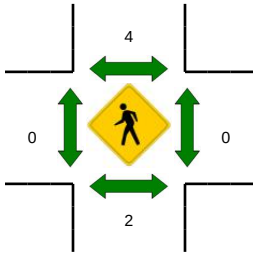
LOCATION: Middle Hospital Dwy -- F St
CITY/STATE: Sacramento, CA

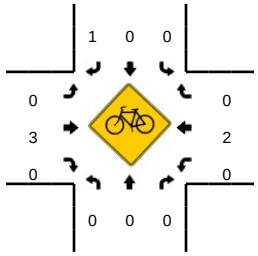
QC JOB #: 10812535
DATE: Tue, Nov 06 2012

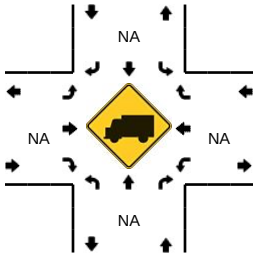
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:40 PM -- 4:55 PM

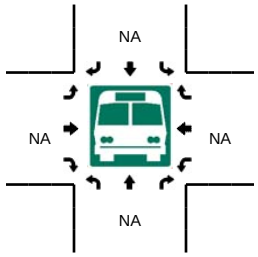












5-Min Count Period Beginning At	Middle Hospital Dwy (Northbound)				Middle Hospital Dwy (Southbound)				F St (Eastbound)				F St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	2	0	0	0	1	7	0	0	0	6	0	0	16	
4:05 PM	0	0	0	0	2	0	0	0	0	9	0	0	0	2	1	0	14	
4:10 PM	0	0	0	0	2	0	3	0	2	6	0	0	0	9	1	0	23	
4:15 PM	0	0	0	0	2	0	2	0	2	2	0	0	0	3	1	0	12	
4:20 PM	0	0	0	0	1	0	2	0	2	4	0	0	0	8	1	0	18	
4:25 PM	0	0	0	0	2	0	1	0	1	1	0	0	0	4	2	0	11	
4:30 PM	0	0	0	0	1	0	6	0	1	3	0	0	0	4	0	0	15	
4:35 PM	0	0	0	0	2	0	1	0	0	4	0	0	0	4	1	0	12	
4:40 PM	0	0	0	0	3	0	2	0	3	6	0	0	0	4	1	0	19	
4:45 PM	0	0	0	0	1	0	4	0	1	5	0	0	0	9	1	0	21	
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4:55 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	6	0	1	9	185
5:00 PM	0	0	0	0	1	0	0	0	0	5	0	0	0	8	0	0	14	183
5:05 PM	0	0	0	0	1	0	1	0	0	5	0	0	0	6	0	0	13	182
5:10 PM	0	0	0	0	1	0	1	0	0	6	0	0	0	6	0	0	14	173
5:15 PM	0	0	0	0	1	0	1	0	2	7	0	0	0	8	1	0	20	181
5:20 PM	0	0	0	0	1	0	1	0	1	10	0	0	0	3	0	0	16	179
5:25 PM	0	0	0	0	1	0	1	0	1	1	0	0	0	7	2	0	13	181
5:30 PM	0	0	0	0	1	0	4	0	0	1	0	0	0	3	0	0	9	175
5:35 PM	0	0	0	0	1	0	2	0	1	5	0	0	0	5	0	0	14	177
5:40 PM	0	0	0	0	3	0	0	0	0	5	0	1	0	8	0	0	17	175
5:45 PM	0	0	0	0	1	0	0	0	2	3	0	0	0	3	0	0	9	163
5:50 PM	0	0	0	0	1	0	0	0	0	4	0	0	0	3	0	0	8	156
5:55 PM	0	0	0	0	1	0	1	0	0	5	0	0	0	5	1	0	13	160

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	24	0	24	0	16	72	0	0	0	76	8	0	220
Heavy Trucks	0	0	0		0	0	0		0	4	0		0	0	0		4
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	2	0		0	1	0		3
Railroad																	
Stopped Buses																	

Comments: Ins and Outs Only

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Middle Hospital Dwy -- F St
CITY/STATE: Sacramento, CA

QC JOB #: 10812534
DATE: Tue, Nov 06 2012

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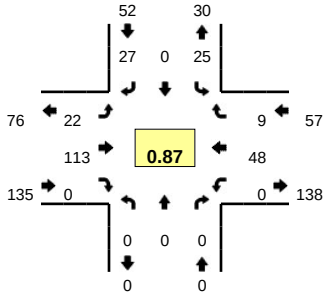
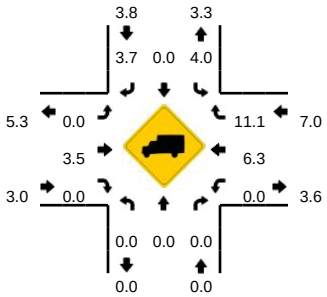
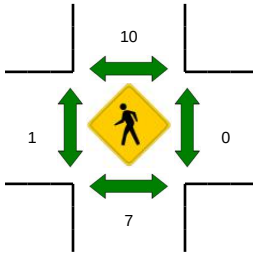
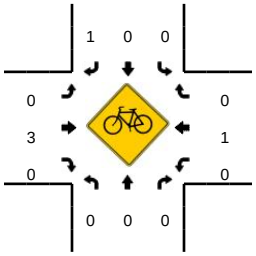
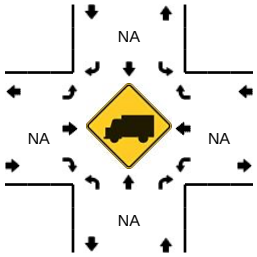
Peak 15-Min: 8:20 AM -- 8:35 AM

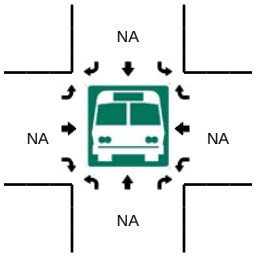












5-Min Count Period Beginning At	Middle Hospital Dwy (Northbound)				Middle Hospital Dwy (Southbound)				F St (Eastbound)				F St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	1	0	2	0	1	5	0	0	0	4	0	0	13	
7:05 AM	0	0	0	0	0	0	1	0	0	6	0	0	0	1	0	0	8	
7:10 AM	0	0	0	0	2	0	1	0	0	4	0	0	0	4	1	0	12	
7:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	3	0	0	7	
7:20 AM	0	0	0	0	2	0	2	0	0	5	0	0	0	6	0	0	15	
7:25 AM	0	0	0	0	1	0	1	0	1	5	0	0	0	4	0	0	12	
7:30 AM	0	0	0	0	0	0	0	0	0	6	0	1	0	2	1	0	10	
7:35 AM	0	0	0	0	1	0	1	0	4	7	0	0	0	2	0	0	15	
7:40 AM	0	0	0	0	4	0	2	0	1	9	0	0	0	3	0	0	19	
7:45 AM	0	0	0	0	1	0	1	0	1	17	0	0	0	3	1	0	24	
7:50 AM	0	0	0	0	1	0	1	0	3	11	0	0	0	6	1	0	23	
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8:05 AM	0	0	0	0	2	0	3	0	2	3	0	1	0	8	0	0	19	197
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8:25 AM	0	0	0	0	3	0	3	0	4	7	0	0	0	3	0	0	20	236
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8:35 AM	0	0	0	0	1	0	3	0	0	4	0	0	0	4	1	0	13	242
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8:45 AM	0	0	0	0	1	0	1	0	1	9	0	0	0	3	1	0	16	235
8:50 AM	0	0	0	0	0	0	2	0	0	14	0	0	0	1	0	0	17	229
8:55 AM	0	0	0	0	0	0	2	0	1	4	0	0	0	10	0	0	17	224

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	24	0	52	0	20	108	0	0	0	56	20	0	280
Heavy Trucks	0	0	0		0	0	4		0	0	0		0	12	4		20
Pedestrians		4				12				4				0			20
Bicycles	0	0	0		0	0	0		0	2	0		0	0	0		2
Railroad																	
Stopped Buses																	

Comments: Ins and Outs Only

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: E Hospital Dwy -- F St
CITY/STATE: Sacramento, CA

QC JOB #: 10812524
DATE: Tue, Nov 06 2012

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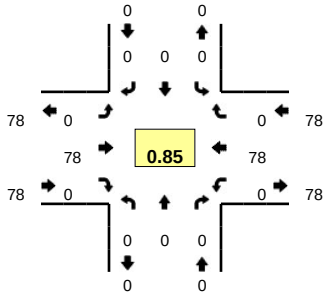
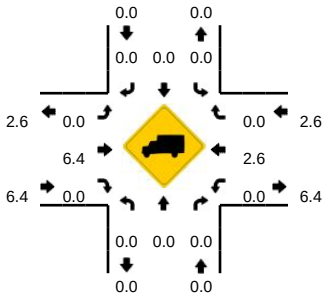
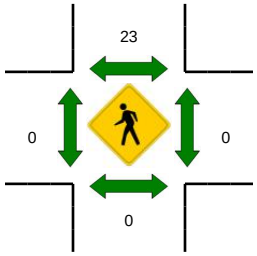
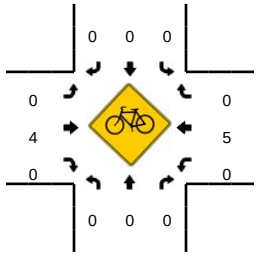
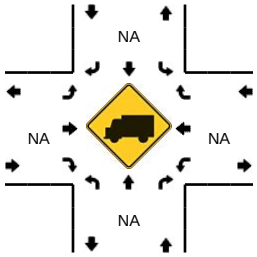
Peak 15-Min: 4:40 PM -- 4:55 PM

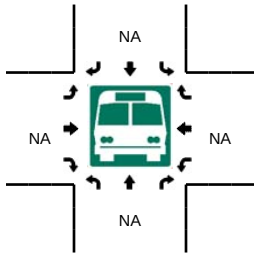












5-Min Count Period Beginning At	E Hospital Dwy (Northbound)				E Hospital Dwy (Southbound)				F St (Eastbound)				F St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	0	0	0	0	1	8	0	0	0	5	0	0	14	
4:05 PM	0	0	0	0	0	0	0	0	1	12	0	0	0	2	0	0	15	
4:10 PM	0	0	0	0	0	0	0	0	0	7	0	0	0	8	0	0	15	
4:15 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0	0	9	
4:20 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	7	0	0	12	
4:25 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	6	0	0	8	
4:30 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	4	0	0	9	
4:35 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	4	0	0	9	
4:40 PM	0	0	0	0	0	0	0	0	0	9	0	0	0	5	0	0	14	
4:45 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	11	0	0	17	
4:50 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	5	0	0	15	
4:55 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	7	0	0	10	147
5:00 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	8	0	0	14	147
5:05 PM	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	0	14	146
5:10 PM	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	0	14	145
5:15 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	8	0	0	14	150
5:20 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	3	0	0	14	152
5:25 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	9	0	0	12	156
5:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	0	5	152
5:35 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	6	0	0	12	155
5:40 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	8	0	0	14	155
5:45 PM	0	0	0	0	0	0	0	0	0	5	0	1	0	4	0	0	10	148
5:50 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	138
5:55 PM	0	0	0	0	0	0	0	0	0	7	0	0	0	6	0	0	13	141

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	0	100	0	0	0	84	0	0	184
Heavy Trucks	0	0	0		0	0	0		0	12	0		0	0	0		12
Pedestrians		0				4				0				0			4
Bicycles	0	0	0		0	0	0		0	1	0		0	1	0		2
Railroad																	
Stopped Buses																	

Comments: Ins and Outs Only

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

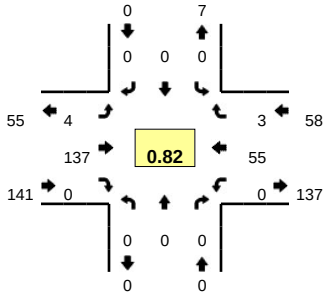
Type of peak hour being reported: Intersection Peak

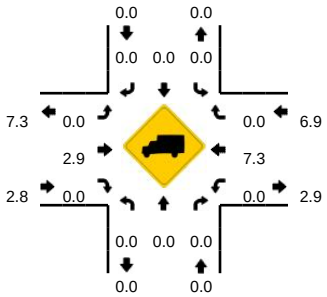
Method for determining peak hour: Total Entering Volume

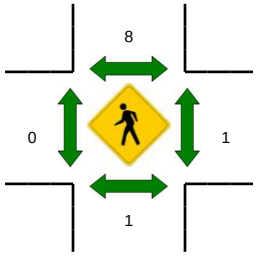
LOCATION: E Hospital Dwy -- F St
CITY/STATE: Sacramento, CA

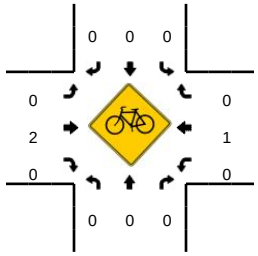
QC JOB #: 10812523
DATE: Tue, Nov 06 2012

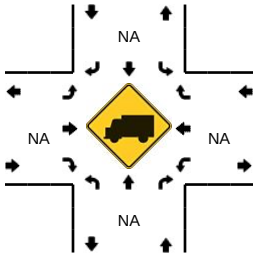
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

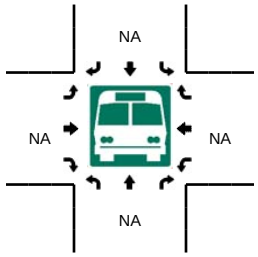












5-Min Count Period Beginning At	E Hospital Dwy (Northbound)				E Hospital Dwy (Southbound)				F St (Eastbound)				F St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	0	0	0	8	0	0	0	4	0	0	12	
7:05 AM	0	0	0	0	0	0	0	0	0	6	0	0	0	1	0	0	7	
7:10 AM	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	0	10	
7:15 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	6	
7:20 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	6	0	0	13	
7:25 AM	0	0	0	0	0	0	0	0	0	6	0	0	0	4	0	0	10	
7:30 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	3	0	0	10	
7:35 AM	0	0	0	0	0	0	0	0	0	10	0	0	0	2	0	0	12	
7:40 AM	0	0	0	0	0	0	0	0	0	14	0	0	0	2	0	0	16	
7:45 AM	0	0	0	0	0	0	0	0	0	18	0	0	0	5	0	0	23	
7:50 AM	0	0	0	0	0	0	0	0	1	12	0	0	0	8	0	0	21	
7:55 AM	0	0	0	0	0	0	0	0	1	12	0	0	0	4	0	0	17	157
8:00 AM	0	0	0	0	0	0	0	0	0	15	0	0	0	2	1	0	18	163
8:05 AM	0	0	0	0	0	0	0	0	0	5	0	0	0	8	0	0	13	169
8:10 AM	0	0	0	0	0	0	0	0	0	11	0	0	0	3	0	0	14	173
8:15 AM	0	0	0	0	0	0	0	0	1	8	0	0	0	4	2	0	15	182
8:20 AM	0	0	0	0	0	0	0	0	1	15	0	0	0	11	0	0	27	196
8:25 AM	0	0	0	0	0	0	0	0	0	10	0	0	0	3	0	0	13	199
8:30 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	3	0	0	10	199
8:35 AM	0	0	0	0	0	0	0	0	1	5	0	0	0	5	0	0	11	198
8:40 AM	0	0	0	0	0	0	0	0	0	9	0	0	0	6	0	0	15	197
8:45 AM	0	0	0	0	0	0	0	0	0	10	0	0	0	5	0	0	15	189
8:50 AM	0	0	0	0	0	0	0	0	2	12	0	0	0	1	0	0	15	183
8:55 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	11	1	0	16	182

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	8	168	0	0	0	68	0	0	244
Heavy Trucks	0	0	0		0	0	0		0	8	0		0	4	0		12
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments: Ins and Outs Only

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

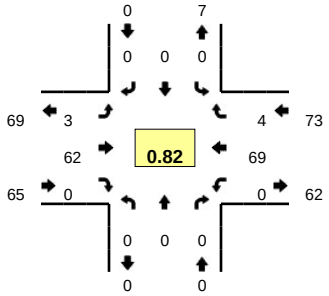
Type of peak hour being reported: Intersection Peak

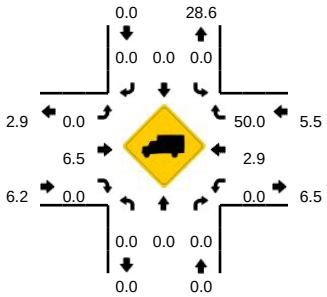
Method for determining peak hour: Total Entering Volume

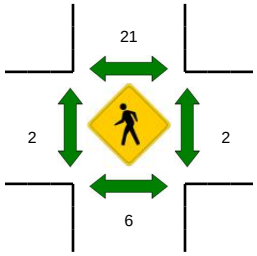
LOCATION: W Hospital Dwy -- F St
CITY/STATE: Sacramento, CA

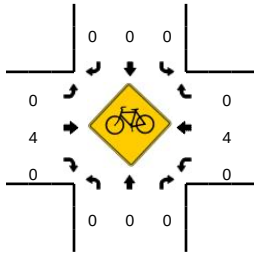
QC JOB #: 10812522
DATE: Tue, Nov 06 2012

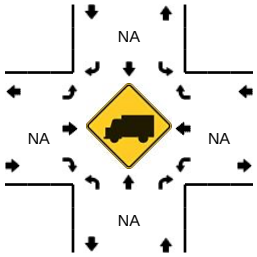
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:40 PM -- 4:55 PM

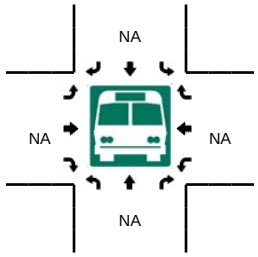












5-Min Count Period Beginning At	W Hospital Dwy (Northbound)				W Hospital Dwy (Southbound)				F St (Eastbound)				F St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	0	0	0	0	0	7	0	0	0	8	1	0	16	
4:05 PM	0	0	0	0	0	0	0	0	0	8	0	0	0	1	0	0	9	
4:10 PM	0	0	0	0	0	0	0	0	1	7	0	0	0	6	0	0	14	
4:15 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	4	1	0	8	
4:20 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0	0	9	
4:25 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0	0	6	
4:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	7	1	0	11	
4:35 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	8	
4:40 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	7	0	0	17	
4:45 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	11	0	0	15	
4:50 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	0	10	
4:55 PM	0	0	0	0	0	0	0	0	2	5	0	0	0	7	1	0	15	138
5:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	7	0	0	9	131
5:05 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0	0	9	131
5:10 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	3	0	0	8	125
5:15 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	7	0	0	13	130
5:20 PM	0	0	0	0	0	0	0	0	3	4	0	0	0	4	0	0	11	132
5:25 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	7	0	0	9	135
5:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	5	129
5:35 PM	0	0	0	0	0	0	0	0	1	7	0	0	0	6	0	0	14	135
5:40 PM	0	0	0	0	0	0	0	0	2	5	0	0	0	2	1	1	11	129
5:45 PM	0	0	0	0	0	0	0	0	0	8	0	0	0	4	1	0	13	127
5:50 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	5	122
5:55 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	3	1	0	9	116

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	0	76	0	0	0	92	0	0	168
Heavy Trucks	0	0	0		0	0	0		0	8	0		0	0	0		8
Pedestrians		0				20				0				0			20
Bicycles	0	0	0		0	0	0		0	3	0		0	1	0		4
Railroad																	
Stopped Buses																	

Comments: Ins and Outs Only

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

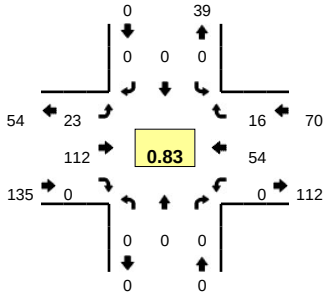
Type of peak hour being reported: Intersection Peak

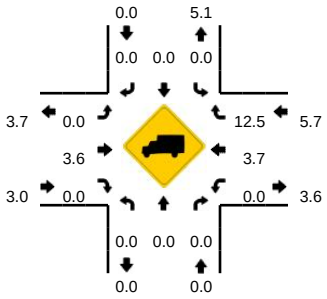
Method for determining peak hour: Total Entering Volume

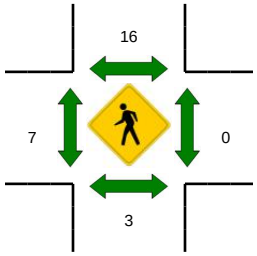
LOCATION: W Hospital Dwy -- F St
CITY/STATE: Sacramento, CA

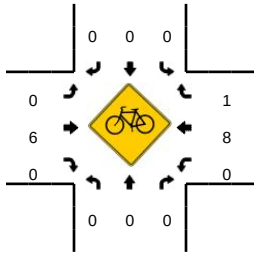
QC JOB #: 10812521
DATE: Tue, Nov 06 2012

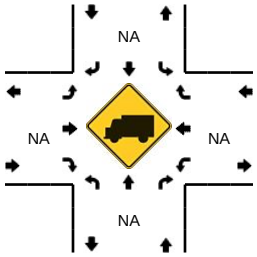
Peak-Hour: 7:25 AM -- 8:25 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

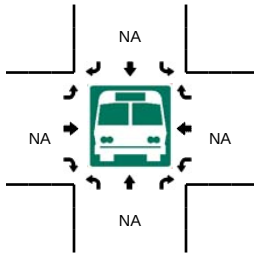












5-Min Count Period Beginning At	W Hospital Dwy (Northbound)				W Hospital Dwy (Southbound)				F St (Eastbound)				F St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	0	0	2	7	0	0	0	2	5	0	16	
7:05 AM	0	0	0	0	0	0	0	0	3	4	0	0	0	1	0	0	8	
7:10 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	5	1	0	9	
7:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	1	7	0	10	
7:20 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	5	2	0	11	
7:25 AM	0	0	0	0	0	0	0	0	3	9	0	0	0	1	3	0	16	
7:30 AM	0	0	0	0	0	0	0	0	4	4	0	0	0	3	1	0	12	
7:35 AM	0	0	0	0	0	0	0	0	0	12	0	0	0	4	0	0	16	
7:40 AM	0	0	0	0	0	0	0	0	0	9	0	0	0	3	1	0	13	
7:45 AM	0	0	0	0	0	0	0	0	2	17	0	0	0	3	0	0	22	
7:50 AM	0	0	0	0	0	0	0	0	0	11	0	0	0	6	4	0	21	
7:55 AM	0	0	0	0	0	0	0	0	0	13	0	0	0	5	1	0	19	173
8:00 AM	0	0	0	0	0	0	0	0	5	8	0	0	0	5	0	0	18	175
8:05 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	6	3	0	11	178
8:10 AM	0	0	0	0	0	0	0	0	3	10	0	0	0	3	0	0	16	185
8:15 AM	0	0	0	0	0	0	0	0	4	6	0	0	0	6	2	0	18	193
8:20 AM	0	0	0	0	0	0	0	0	1	12	0	0	0	9	1	0	23	205
8:25 AM	0	0	0	0	0	0	0	0	1	6	0	0	0	2	1	0	10	199
8:30 AM	0	0	0	0	0	0	0	0	2	4	0	0	0	4	1	0	11	198
8:35 AM	0	0	0	0	0	0	0	0	2	3	0	0	0	5	1	0	11	193
8:40 AM	0	0	0	0	0	0	0	0	2	8	0	0	0	5	1	0	16	196
8:45 AM	0	0	0	0	0	0	0	0	0	5	0	0	0	3	0	0	8	182
8:50 AM	0	0	0	0	0	0	0	0	2	10	0	0	0	3	0	0	15	176
8:55 AM	0	0	0	0	0	0	0	0	1	6	0	0	0	9	0	0	16	173

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	8	164	0	0	0	56	20	0	248
Heavy Trucks	0	0	0		0	0	0		0	4	0		0	0	0		4
Pedestrians		4				20				8				0			32
Bicycles	0	0	0		0	0	0		0	1	0		0	1	1		3
Railroad																	
Stopped Buses																	

Comments: Ins and Outs Only

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

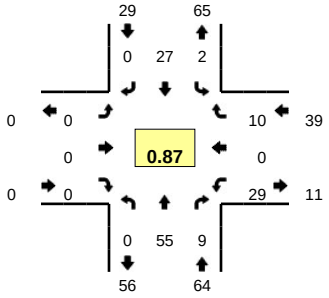
Type of peak hour being reported: Intersection Peak

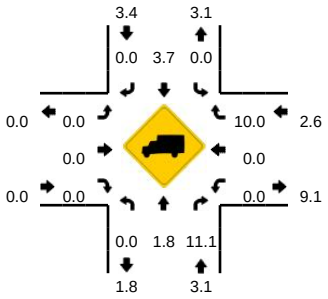
Method for determining peak hour: Total Entering Volume

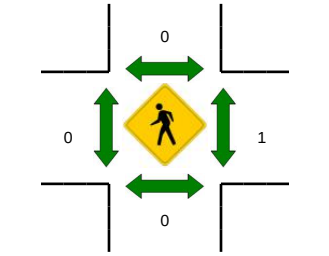
LOCATION: Coloma Way/50th St -- E St
CITY/STATE: Sacramento, CA

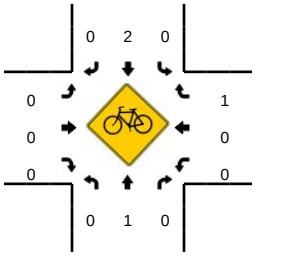
QC JOB #: 10812520
DATE: Tue, Nov 06 2012

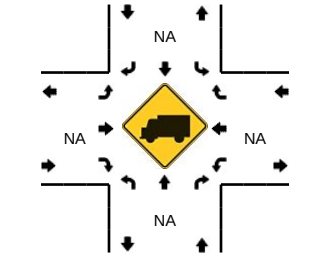
Peak-Hour: 4:25 PM -- 5:25 PM
Peak 15-Min: 5:10 PM -- 5:25 PM

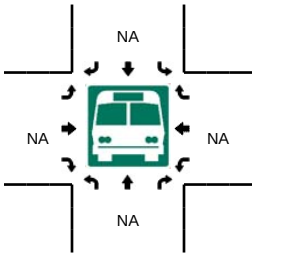












5-Min Count Period Beginning At	Coloma Way/50th St (Northbound)				Coloma Way/50th St (Southbound)				E St (Eastbound)				E St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	5	3	0	0	2	0	0	0	0	0	0	2	0	1	0	13	
4:05 PM	0	1	0	0	0	4	0	0	0	0	0	0	1	0	0	0	6	
4:10 PM	0	2	0	0	0	2	0	0	0	0	0	0	4	0	2	0	10	
4:15 PM	0	2	0	0	0	4	0	0	0	0	0	0	2	0	2	0	10	
4:20 PM	0	6	1	0	0	2	0	1	0	0	0	0	0	0	0	0	10	
4:25 PM	0	4	1	0	0	3	0	0	0	0	0	0	4	0	1	0	13	
4:30 PM	0	4	2	0	1	1	0	0	0	0	0	0	2	0	1	0	11	
4:35 PM	0	4	0	0	0	2	0	0	0	0	0	0	4	0	0	0	10	
4:40 PM	0	6	0	0	0	3	0	0	0	0	0	0	2	0	3	0	14	
4:45 PM	0	6	0	0	0	4	0	0	0	0	0	0	2	0	0	0	12	
4:50 PM	0	3	3	0	0	0	0	0	0	0	0	0	1	0	2	0	9	
4:55 PM	0	3	0	0	0	2	0	0	0	0	0	0	2	0	0	0	7	125
5:00 PM	0	3	0	0	1	3	0	0	0	0	0	0	3	0	1	0	11	123
5:05 PM	0	5	0	0	0	2	0	0	0	0	0	0	0	0	0	0	7	124
5:10 PM	0	7	1	0	0	1	0	0	0	0	0	0	3	0	1	0	13	127
5:15 PM	0	5	1	0	0	2	0	0	0	0	0	0	5	0	1	0	14	131
5:20 PM	0	5	1	0	0	4	0	0	0	0	0	0	1	0	0	0	11	132
5:25 PM	0	5	0	0	0	2	0	0	0	0	0	0	2	0	0	0	9	128
5:30 PM	0	3	1	0	0	2	0	0	0	0	0	0	2	0	1	0	9	126
5:35 PM	0	3	0	0	1	7	0	0	0	0	0	0	1	0	0	0	12	128
5:40 PM	0	2	0	0	0	4	0	0	0	0	0	0	1	0	2	0	9	123
5:45 PM	0	7	1	0	0	3	0	0	0	0	0	0	1	0	0	0	12	123
5:50 PM	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	3	117
5:55 PM	0	3	0	0	1	2	0	0	0	0	0	0	0	0	2	0	8	118

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	68	12	0	0	28	0	0	0	0	0	0	36	0	8	0	152
Heavy Trucks	0	4	0		0	0	0		0	0	0		0	0	0		4
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

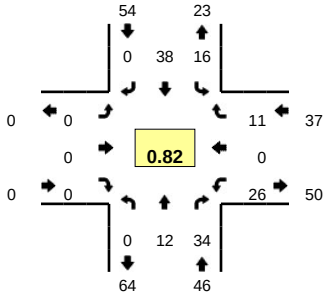
Type of peak hour being reported: Intersection Peak

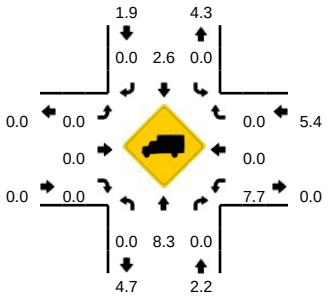
Method for determining peak hour: Total Entering Volume

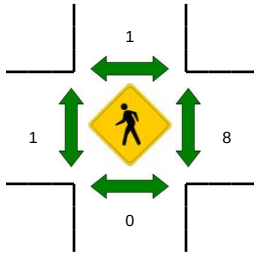
LOCATION: Coloma Way/50th St -- E St
CITY/STATE: Sacramento, CA

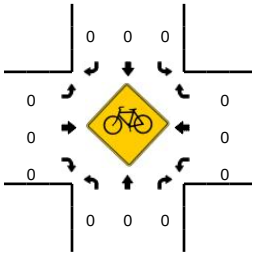
QC JOB #: 10812519
DATE: Tue, Nov 06 2012

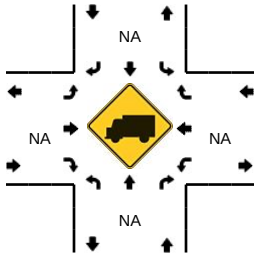
Peak-Hour: 7:10 AM -- 8:10 AM
Peak 15-Min: 7:10 AM -- 7:25 AM

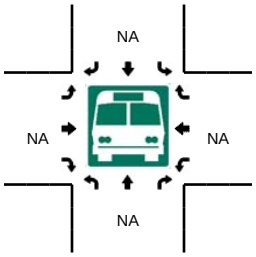












5-Min Count Period Beginning At	Coloma Way/50th St (Northbound)				Coloma Way/50th St (Southbound)				E St (Eastbound)				E St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	1	1	0	0	5	0	0	0	0	0	0	0	0	1	0	8	
7:05 AM	0	1	4	0	1	1	0	0	0	0	0	0	1	0	0	0	8	
7:10 AM	0	1	5	0	1	3	0	0	0	0	0	0	4	0	4	0	18	
7:15 AM	0	2	1	0	1	3	0	0	0	0	0	0	3	0	1	0	11	
7:20 AM	0	2	1	0	3	2	0	0	0	0	0	0	3	0	2	0	13	
7:25 AM	0	0	4	0	2	1	0	0	0	0	0	0	1	0	0	0	8	
7:30 AM	0	0	2	0	0	1	0	0	0	0	0	0	2	0	2	0	7	
7:35 AM	0	0	7	0	2	3	0	0	0	0	0	0	5	0	1	0	18	
7:40 AM	0	2	1	0	2	5	0	0	0	0	0	0	1	0	0	0	11	
7:45 AM	0	0	2	0	1	6	0	0	0	0	0	0	1	0	1	0	11	
7:50 AM	0	1	4	0	1	3	0	0	0	0	0	0	1	0	0	0	10	
7:55 AM	0	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	6	129
8:00 AM	0	1	1	0	1	6	0	0	0	0	0	0	4	0	0	0	13	134
8:05 AM	0	2	4	0	2	2	0	0	0	0	0	0	1	0	0	0	11	137
8:10 AM	0	1	3	0	2	6	0	0	0	0	0	0	1	0	1	0	14	133
8:15 AM	0	2	3	0	2	2	0	0	0	0	0	0	0	0	0	0	9	131
8:20 AM	0	3	3	0	2	2	0	0	0	0	0	0	1	0	0	0	11	129
8:25 AM	0	1	2	0	0	0	0	0	0	0	0	0	0	0	1	0	4	125
8:30 AM	0	3	2	0	3	3	0	0	0	0	0	0	1	0	0	0	12	130
8:35 AM	0	5	3	0	2	1	0	0	0	0	0	0	0	0	0	0	11	123
8:40 AM	0	0	3	0	0	1	0	0	0	0	0	0	2	0	2	0	8	120
8:45 AM	0	1	3	1	1	4	0	0	0	0	0	0	3	0	0	0	13	122
8:50 AM	0	3	5	0	1	2	0	0	0	0	0	0	2	0	0	0	13	125
8:55 AM	0	3	6	0	0	0	0	0	0	0	0	0	3	0	0	0	12	131

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	20	28	0	20	32	0	0	0	0	0	0	40	0	28	0	168
Heavy Trucks	0	4	0		0	0	0		0	0	0		0	0	0		4
Pedestrians		0				0				0				8			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

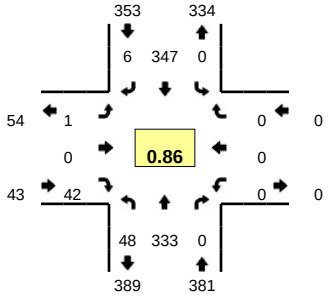
Type of peak hour being reported: Intersection Peak

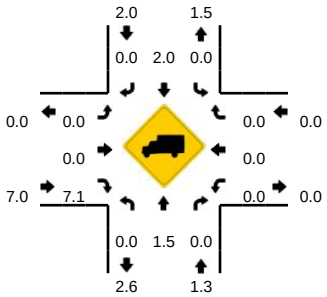
Method for determining peak hour: Total Entering Volume

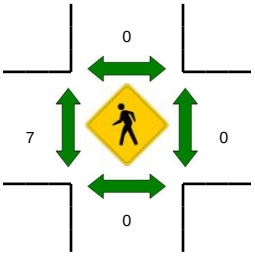
LOCATION: Elvas Ave -- C St
CITY/STATE: Sacramento, CA

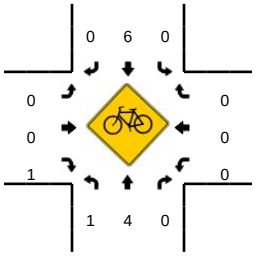
QC JOB #: 10812518
DATE: Tue, Nov 06 2012

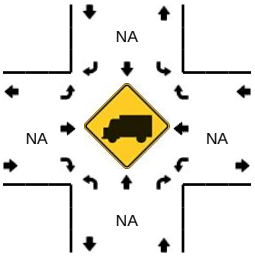
Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

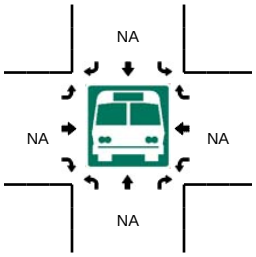












5-Min Count Period Beginning At	Elvas Ave (Northbound)				Elvas Ave (Southbound)				C St (Eastbound)				C St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	23	0	0	0	24	1	0	0	0	6	0	0	0	0	0	54	
4:05 PM	1	22	0	0	0	30	0	0	0	0	2	0	0	0	0	0	55	
4:10 PM	2	26	0	0	0	20	0	0	0	0	6	0	0	0	0	0	54	
4:15 PM	4	21	0	0	0	26	0	0	0	0	7	0	0	0	0	0	58	
4:20 PM	2	24	0	0	0	27	1	0	0	0	4	0	0	0	0	0	58	
4:25 PM	3	28	0	0	0	27	1	0	0	0	2	0	0	0	0	0	61	
4:30 PM	4	22	0	0	0	32	0	0	0	0	1	0	0	0	0	0	59	
4:35 PM	1	31	0	0	0	22	0	0	0	0	2	0	0	0	0	0	56	
4:40 PM	1	21	0	0	0	28	0	0	1	0	2	0	0	0	0	0	53	
4:45 PM	5	26	0	0	0	28	2	0	0	0	4	0	0	0	0	0	65	
4:50 PM	4	25	0	0	0	27	0	0	0	0	2	0	0	0	0	0	58	
4:55 PM	3	25	0	0	0	18	0	0	0	0	5	0	0	0	0	0	51	682
5:00 PM	4	26	0	0	0	26	0	0	0	0	2	0	0	0	0	0	58	686
5:05 PM	7	31	0	0	0	39	1	0	1	0	3	0	0	0	0	0	82	713
5:10 PM	6	27	0	0	0	42	0	0	0	0	3	0	0	0	0	0	78	737
5:15 PM	2	32	0	0	0	29	1	0	0	0	3	0	0	0	0	0	67	746
5:20 PM	3	23	0	0	0	36	1	0	0	0	4	0	0	0	0	0	67	755
5:25 PM	4	29	0	0	0	26	1	0	0	0	3	0	0	0	0	0	63	757
5:30 PM	5	23	0	0	0	27	0	0	0	0	6	0	0	0	0	0	61	759
5:35 PM	2	31	0	0	0	19	0	0	0	0	4	0	0	0	0	0	56	759
5:40 PM	3	35	0	0	0	30	0	0	0	0	3	0	0	0	0	0	71	777
5:45 PM	2	31	0	0	0	20	0	0	0	0	4	0	0	0	0	0	57	769
5:50 PM	5	25	0	0	0	21	1	0	0	0	0	0	0	0	0	0	52	763
5:55 PM	0	20	0	0	0	27	0	0	0	0	1	1	0	0	0	0	49	761

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	60	360	0	0	0	440	8	0	4	0	36	0	0	0	0	0	908
Heavy Trucks	0	4	0		0	4	0		0	0	0		0	0	0		8
Pedestrians		0				0				4				0			4
Bicycles	0	1	0		0	1	0		0	0	1		0	0	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

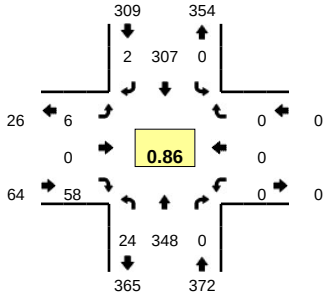
Type of peak hour being reported: Intersection Peak

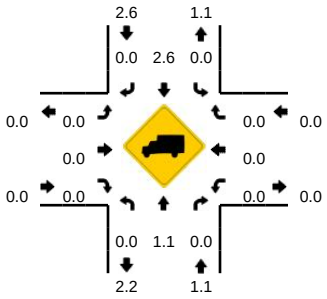
Method for determining peak hour: Total Entering Volume

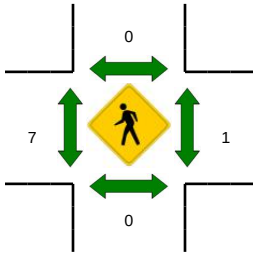
LOCATION: Elvas Ave -- C St
CITY/STATE: Sacramento, CA

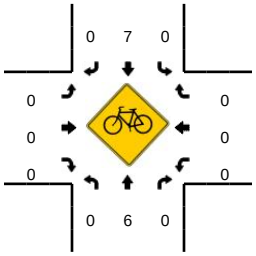
QC JOB #: 10812517
DATE: Tue, Nov 06 2012

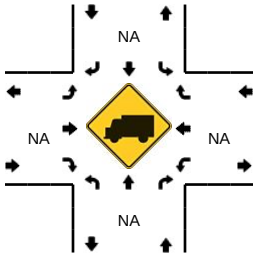
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:50 AM -- 8:05 AM

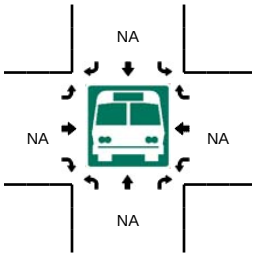












5-Min Count Period Beginning At	Elvas Ave (Northbound)				Elvas Ave (Southbound)				C St (Eastbound)				C St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	12	0	0	0	13	0	0	0	0	5	0	0	0	0	0	30	
7:05 AM	3	14	0	0	0	13	0	0	0	0	2	0	0	0	0	0	32	
7:10 AM	0	18	0	0	0	12	1	0	2	0	4	0	0	0	0	0	37	
7:15 AM	2	20	0	0	0	20	0	0	1	0	6	0	0	0	0	0	49	
7:20 AM	0	16	0	0	0	16	0	0	0	0	4	0	0	0	0	0	36	
7:25 AM	2	16	0	0	0	20	0	0	0	0	3	0	0	0	0	0	41	
7:30 AM	4	25	0	0	0	20	0	0	1	0	8	0	0	0	0	0	58	
7:35 AM	2	28	0	0	0	16	0	0	1	0	4	0	0	0	0	0	51	
7:40 AM	1	27	0	0	0	28	0	0	0	0	3	0	0	0	0	0	59	
7:45 AM	1	30	0	0	0	28	0	0	1	0	5	0	0	0	0	0	65	
7:50 AM	1	34	0	0	0	31	0	0	1	0	4	0	0	0	0	0	71	
7:55 AM	2	26	0	0	0	35	1	0	1	0	4	0	0	0	0	0	69	598
8:00 AM	5	37	0	0	0	30	0	0	0	0	4	0	0	0	0	0	76	644
8:05 AM	5	30	0	0	0	27	0	0	0	0	4	0	0	0	0	0	66	678
8:10 AM	0	23	0	0	0	26	0	0	0	0	3	0	0	0	0	0	52	693
8:15 AM	2	40	0	0	0	17	1	0	0	0	6	0	0	0	0	0	66	710
8:20 AM	0	22	0	0	0	24	0	0	0	0	9	0	0	0	0	0	55	729
8:25 AM	1	26	0	0	0	25	0	0	1	0	4	0	0	0	0	0	57	745
8:30 AM	0	21	0	0	0	21	0	0	0	0	3	0	0	0	0	0	45	732
8:35 AM	1	32	0	0	0	18	0	0	0	0	1	0	0	0	0	0	52	733
8:40 AM	1	27	0	0	0	18	0	0	1	0	4	0	0	0	0	0	51	725
8:45 AM	0	21	0	0	0	17	2	0	0	0	2	0	0	0	0	0	42	702
8:50 AM	2	21	0	0	0	22	1	1	0	0	3	0	0	0	0	0	50	681
8:55 AM	0	28	0	0	0	21	0	0	0	0	5	0	0	0	0	0	54	666

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	32	388	0	0	0	384	4	0	8	0	48	0	0	0	0	0	864
Heavy Trucks	0	0	0		0	12	0		0	0	0		0	0	0		12
Pedestrians		0				0				4				4			8
Bicycles	0	3	0		0	4	0		0	0	0		0	0	0		7
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

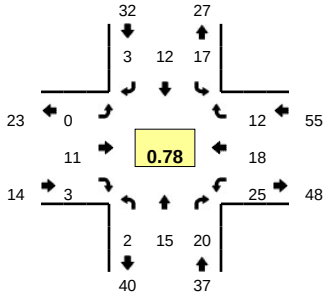
Type of peak hour being reported: Intersection Peak

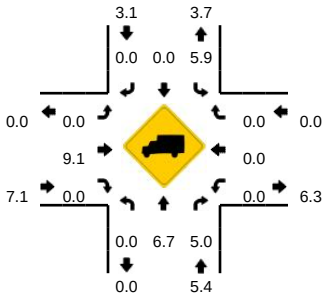
Method for determining peak hour: Total Entering Volume

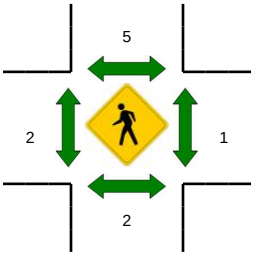
LOCATION: 51st St -- C St
CITY/STATE: Sacramento, CA

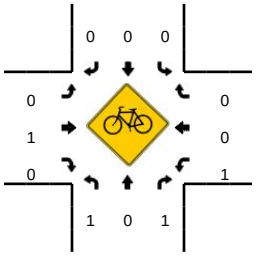
QC JOB #: 10812516
DATE: Tue, Nov 06 2012

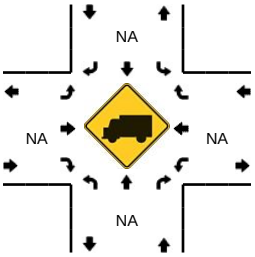
Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 5:25 PM -- 5:40 PM

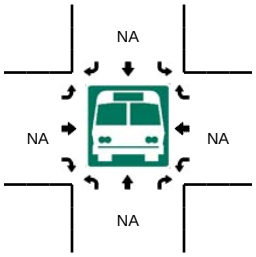












5-Min Count Period Beginning At	51st St (Northbound)				51st St (Southbound)				C St (Eastbound)				C St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	1	2	1	0	0	0	0	0	1	0	0	0	0	1	0	6	
4:05 PM	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	0	4	
4:10 PM	0	0	4	0	2	1	0	0	0	3	0	0	2	0	0	0	12	
4:15 PM	0	0	2	0	0	3	0	0	0	0	0	0	0	2	0	0	7	
4:20 PM	1	3	3	0	1	1	0	0	0	0	0	0	1	2	0	0	12	
4:25 PM	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	0	4	
4:30 PM	1	3	1	0	1	1	0	0	0	1	2	0	3	2	0	0	15	
4:35 PM	0	3	2	0	2	0	0	1	0	0	2	0	1	0	0	0	11	
4:40 PM	0	3	3	0	1	3	0	0	0	0	1	0	2	0	0	0	13	
4:45 PM	0	1	2	0	0	0	0	0	0	0	0	0	3	1	4	0	11	
4:50 PM	0	4	1	0	0	0	0	0	0	0	0	0	0	3	2	0	10	
4:55 PM	0	1	3	0	1	0	0	0	0	0	1	0	1	3	1	0	11	116
5:00 PM	0	1	2	0	3	1	0	0	0	0	1	0	3	0	1	0	12	122
5:05 PM	0	1	3	0	2	0	0	0	0	0	0	0	3	4	1	0	14	132
5:10 PM	0	2	1	0	0	0	0	0	0	2	0	0	2	1	1	0	9	129
5:15 PM	1	1	1	0	0	2	1	0	0	0	0	0	1	0	0	0	7	129
5:20 PM	1	1	2	0	0	0	0	0	0	0	0	0	0	1	0	0	5	122
5:25 PM	0	1	1	0	3	3	1	0	0	3	0	0	3	1	0	0	16	134
5:30 PM	0	1	1	0	6	3	0	0	0	2	0	0	4	1	0	0	18	137
5:35 PM	0	0	1	0	1	1	0	0	0	3	1	0	2	1	0	0	10	136
5:40 PM	0	1	2	0	1	2	1	0	0	1	0	0	3	2	2	0	15	138
5:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	2	1	0	0	5	132
5:50 PM	0	0	0	0	1	3	0	0	0	0	1	0	0	3	0	0	8	130
5:55 PM	0	2	2	0	1	1	0	0	0	0	0	0	2	1	0	0	9	128

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	8	12	0	40	28	4	0	0	32	4	0	36	12	0	0	176
Heavy Trucks	0	0	4		4	0	0		0	4	0		0	0	0		12
Pedestrians		0				4				0				0			4
Bicycles	0	0	1		0	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

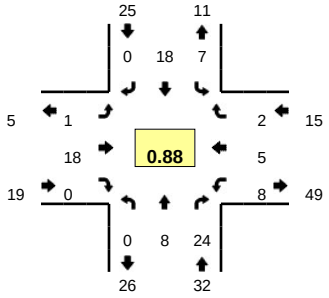
Type of peak hour being reported: Intersection Peak

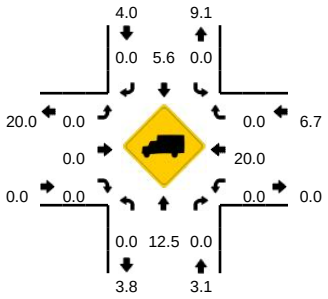
Method for determining peak hour: Total Entering Volume

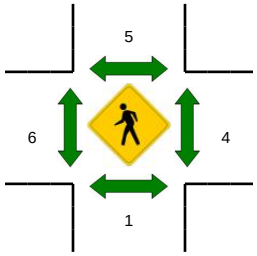
LOCATION: 51st St -- C St
CITY/STATE: Sacramento, CA

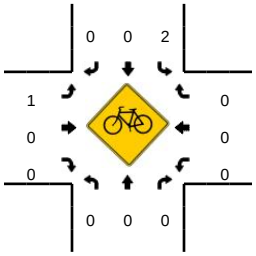
QC JOB #: 10812515
DATE: Tue, Nov 06 2012

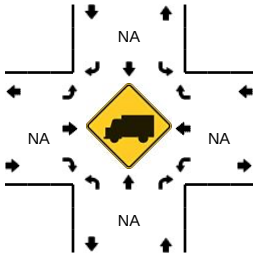
Peak-Hour: 7:05 AM -- 8:05 AM
Peak 15-Min: 7:30 AM -- 7:45 AM

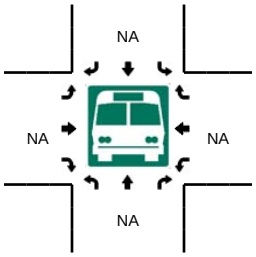












5-Min Count Period Beginning At	51st St (Northbound)				51st St (Southbound)				C St (Eastbound)				C St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	1	1	0	0	1	1	0	0	1	0	0	1	0	0	0	6	
7:05 AM	0	0	1	0	1	2	0	0	0	2	0	0	1	1	0	0	8	
7:10 AM	0	1	2	0	1	1	0	0	0	0	0	0	0	0	0	0	5	
7:15 AM	0	0	3	0	0	1	0	0	0	3	0	0	0	0	0	0	7	
7:20 AM	0	0	2	0	1	2	0	0	0	0	0	0	1	0	0	0	6	
7:25 AM	0	1	1	0	2	0	0	0	0	2	0	0	1	0	0	0	7	
7:30 AM	0	2	2	0	1	1	0	0	0	4	0	0	1	1	0	0	12	
7:35 AM	0	0	3	0	0	0	0	0	1	2	0	0	0	0	0	0	6	
7:40 AM	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	8	
7:45 AM	0	0	3	0	0	2	0	0	0	0	0	0	1	0	0	0	6	
7:50 AM	0	1	2	0	0	0	0	0	0	3	0	0	0	0	0	0	6	
7:55 AM	0	1	3	0	0	1	0	0	0	0	0	0	3	0	1	0	9	86
8:00 AM	0	2	2	0	0	1	0	0	0	2	0	0	0	3	1	0	11	91
8:05 AM	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	3	86
8:10 AM	1	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	4	85
8:15 AM	0	1	3	0	0	2	0	0	0	3	0	0	0	1	0	0	10	88
8:20 AM	0	1	5	0	1	0	0	0	0	0	0	0	0	0	0	1	8	90
8:25 AM	0	0	4	0	0	0	0	0	0	1	0	0	0	1	0	0	6	89
8:30 AM	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	3	80
8:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	75
8:40 AM	0	0	1	0	0	1	0	1	0	2	0	0	0	0	1	0	6	73
8:45 AM	1	0	2	1	0	1	0	0	0	0	0	0	3	0	0	0	8	75
8:50 AM	0	0	0	0	0	1	0	0	0	1	0	0	3	0	0	0	5	74
8:55 AM	0	0	3	0	0	0	0	0	0	4	0	0	0	0	0	0	7	72

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	8	20	0	8	32	0	0	4	24	0	0	4	4	0	0	104
Heavy Trucks	0	0	0		0	4	0		0	0	0		0	0	0		4
Pedestrians		0				8				4				0			12
Bicycles	0	0	0		2	0	0		1	0	0		0	0	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

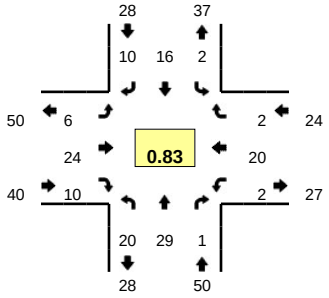
Type of peak hour being reported: Intersection Peak

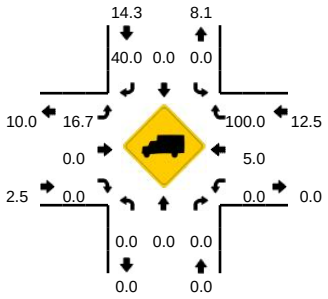
Method for determining peak hour: Total Entering Volume

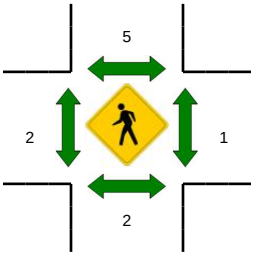
LOCATION: Coloma Way -- D St
CITY/STATE: Sacramento, CA

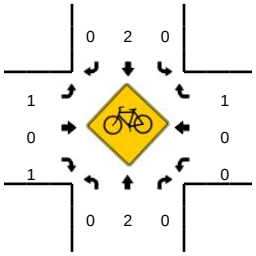
QC JOB #: 10812514
DATE: Tue, Nov 06 2012

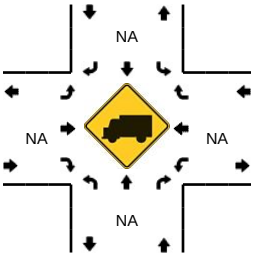
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:30 PM -- 4:45 PM

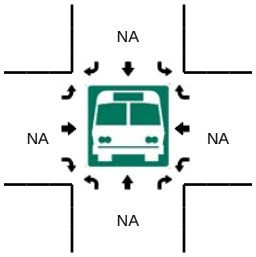












5-Min Count Period Beginning At	Coloma Way (Northbound)				Coloma Way (Southbound)				D St (Eastbound)				D St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	3	0	0	0	0	0	0	2	2	0	0	0	3	0	0	11	
4:05 PM	3	1	1	0	0	2	2	0	1	0	0	0	0	1	2	0	13	
4:10 PM	2	3	0	0	0	1	2	0	0	3	1	0	1	1	0	0	14	
4:15 PM	1	2	0	0	0	1	0	0	0	0	1	0	0	1	0	0	6	
4:20 PM	3	2	0	0	1	2	0	0	0	1	0	0	0	3	0	0	12	
4:25 PM	1	3	0	0	0	4	0	0	0	0	2	0	0	1	0	0	11	
4:30 PM	0	5	0	0	0	0	2	0	0	4	1	0	1	3	0	0	16	
4:35 PM	1	3	0	0	0	0	2	0	1	4	1	0	0	3	0	0	15	
4:40 PM	2	1	0	0	1	3	0	0	0	2	2	0	0	1	0	0	12	
4:45 PM	1	4	0	0	0	1	2	0	0	3	2	0	0	3	0	0	16	
4:50 PM	3	1	0	0	0	0	0	0	1	3	0	0	0	0	0	0	8	
4:55 PM	2	1	0	0	0	2	0	0	1	2	0	0	0	0	0	0	8	142
5:00 PM	1	3	0	0	0	2	0	0	0	2	1	0	0	2	0	0	11	142
5:05 PM	0	4	0	0	0	1	1	0	0	1	1	0	0	1	0	0	9	138
5:10 PM	0	1	0	0	1	0	1	0	0	2	1	0	0	1	0	0	7	131
5:15 PM	3	2	0	0	0	1	0	0	0	1	1	0	0	1	0	0	9	134
5:20 PM	0	2	0	0	0	2	0	0	1	4	2	0	0	2	0	0	13	135
5:25 PM	1	2	0	0	0	0	1	0	0	0	1	0	1	2	0	0	8	132
5:30 PM	1	6	0	0	0	0	0	0	1	3	1	0	0	5	1	0	18	134
5:35 PM	1	3	0	0	0	5	0	0	1	0	0	0	0	1	0	0	11	130
5:40 PM	3	4	0	0	0	3	0	0	0	0	1	0	0	2	0	0	13	131
5:45 PM	1	5	0	0	0	6	0	0	0	0	2	0	0	0	1	0	15	130
5:50 PM	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	127
5:55 PM	1	2	0	0	0	2	1	0	1	2	0	0	0	1	0	0	10	129

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	36	0	0	4	12	16	0	4	40	16	0	4	28	0	0	172
Heavy Trucks	0	0	0		0	0	4		0	0	0		0	0	0		4
Pedestrians		0				16				0				0			16
Bicycles	0	1	0		0	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

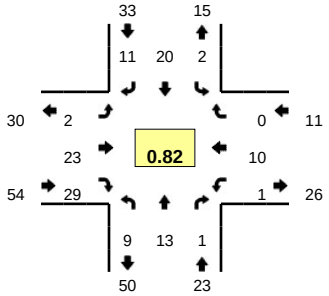
Type of peak hour being reported: Intersection Peak

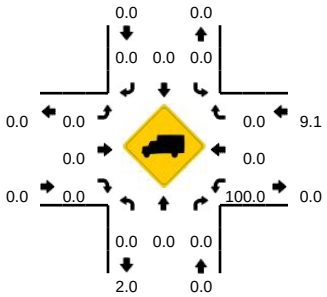
Method for determining peak hour: Total Entering Volume

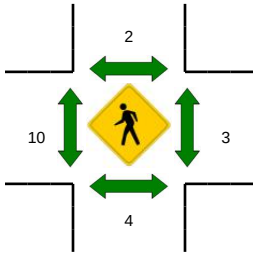
LOCATION: Coloma Way -- D St
CITY/STATE: Sacramento, CA

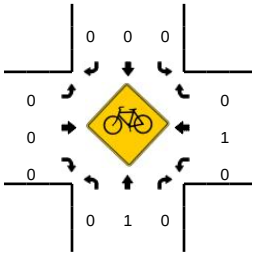
QC JOB #: 10812513
DATE: Tue, Nov 06 2012

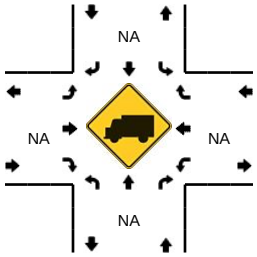
Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

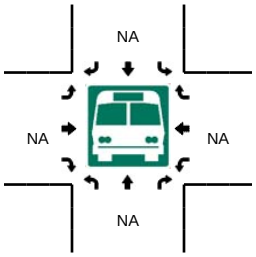












5-Min Count Period Beginning At	Coloma Way (Northbound)				Coloma Way (Southbound)				D St (Eastbound)				D St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	1	0	0	0	2	0	0	0	1	1	0	0	0	0	0	6	
7:05 AM	0	1	0	0	0	2	0	0	0	0	1	0	0	0	0	0	4	
7:10 AM	3	0	0	0	0	2	1	0	0	0	1	0	0	2	0	0	9	
7:15 AM	1	2	0	0	0	2	0	0	0	2	1	0	0	0	0	0	8	
7:20 AM	3	2	0	0	0	1	0	0	0	2	3	0	0	1	0	0	12	
7:25 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2	
7:30 AM	2	0	0	0	0	2	0	0	0	1	2	0	0	2	0	0	9	
7:35 AM	0	0	0	0	0	4	0	0	0	2	2	0	0	2	0	0	10	
7:40 AM	2	0	0	0	0	0	1	0	0	0	4	0	0	2	0	0	9	
7:45 AM	0	1	0	0	0	4	0	0	0	1	3	0	0	2	0	0	11	
7:50 AM	1	0	0	0	0	2	3	0	0	2	2	0	0	1	0	0	11	
7:55 AM	2	2	0	0	0	4	2	0	0	3	2	0	0	0	0	0	15	106
8:00 AM	0	0	0	0	1	1	0	0	0	3	2	0	0	2	0	0	9	109
8:05 AM	2	1	0	0	0	1	2	0	0	2	3	0	0	0	0	0	11	116
8:10 AM	1	0	1	0	0	1	0	0	0	1	5	0	1	0	0	0	10	117
8:15 AM	1	3	0	0	0	0	1	0	0	1	3	0	0	1	0	0	10	119
8:20 AM	0	3	0	0	0	1	0	0	0	5	1	0	0	0	0	0	10	117
8:25 AM	0	0	0	0	1	1	1	0	0	2	0	0	0	0	0	0	5	120
8:30 AM	0	3	0	0	0	1	1	0	2	1	2	0	0	0	0	0	10	121
8:35 AM	0	1	0	0	1	0	1	0	0	1	2	0	1	1	0	0	8	119
8:40 AM	1	2	0	0	0	1	1	0	0	1	0	0	0	0	0	0	6	116
8:45 AM	0	0	0	0	0	3	0	0	0	1	0	0	0	0	0	0	4	109
8:50 AM	0	1	1	0	0	1	0	0	0	0	2	0	0	3	0	0	8	106
8:55 AM	1	2	0	0	0	0	0	0	1	1	0	0	0	2	0	0	7	98

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	12	0	0	0	40	20	0	0	24	28	0	0	12	0	0	148
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Pedestrians		0				4				4				4			12
Bicycles	0	1	0		0	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

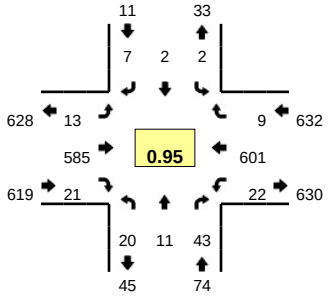
Type of peak hour being reported: Intersection Peak

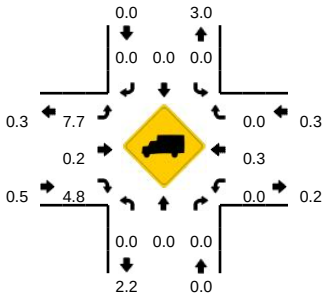
Method for determining peak hour: Total Entering Volume

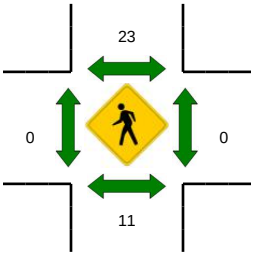
LOCATION: 51st St -- H St
CITY/STATE: Sacramento, CA

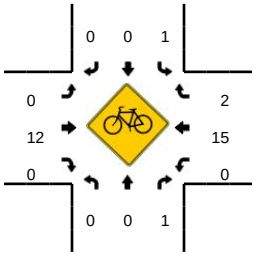
QC JOB #: 10812512
DATE: Tue, Nov 06 2012

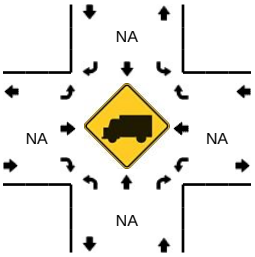
Peak-Hour: 4:55 PM -- 5:55 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

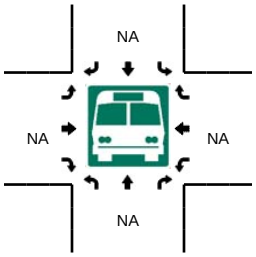












5-Min Count Period Beginning At	51st St (Northbound)				51st St (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	1	4	0	0	0	2	0	0	46	3	0	2	39	0	0	97	
4:05 PM	2	0	1	0	0	0	0	0	0	44	0	0	1	41	0	0	89	
4:10 PM	3	3	4	0	0	0	1	0	3	33	0	0	5	40	1	0	93	
4:15 PM	0	0	3	0	0	0	2	0	1	42	0	0	3	43	0	0	94	
4:20 PM	1	2	3	0	2	0	0	0	0	38	2	0	3	36	0	0	87	
4:25 PM	1	1	5	0	0	0	0	0	2	45	5	0	1	43	0	0	103	
4:30 PM	0	0	3	0	0	0	2	0	0	43	0	0	1	47	0	0	96	
4:35 PM	0	0	5	0	0	0	0	0	0	50	1	0	1	48	1	0	106	
4:40 PM	2	5	6	0	0	1	0	0	0	39	2	0	2	37	1	0	95	
4:45 PM	2	1	2	0	0	4	0	0	1	46	4	0	2	58	0	0	120	
4:50 PM	1	0	4	0	0	1	0	0	1	48	0	0	1	43	0	0	99	
4:55 PM	3	0	0	0	0	0	0	0	1	44	0	0	2	45	0	0	95	1174
5:00 PM	0	0	0	0	0	1	0	0	2	49	3	0	0	44	0	0	99	1176
5:05 PM	2	2	3	0	0	0	1	0	1	44	4	0	2	65	1	0	125	1212
5:10 PM	2	1	5	0	1	0	1	0	0	47	0	0	1	61	0	0	119	1238
5:15 PM	4	1	2	0	0	0	2	0	0	54	0	0	2	44	0	0	109	1253
5:20 PM	1	1	5	0	0	0	0	0	2	55	1	0	2	54	1	0	122	1288
5:25 PM	0	0	5	0	0	0	0	0	0	42	3	0	3	41	2	0	96	1281
5:30 PM	1	0	3	0	0	1	0	0	1	55	4	0	3	55	0	0	123	1308
5:35 PM	0	0	6	0	1	0	0	0	1	48	2	0	2	51	2	0	113	1315
5:40 PM	1	2	2	0	0	0	1	0	1	43	2	0	2	51	1	0	106	1326
5:45 PM	3	3	4	0	0	0	2	0	4	41	2	0	1	49	2	0	111	1317
5:50 PM	3	1	8	0	0	0	0	0	0	63	0	0	2	41	0	0	118	1336
5:55 PM	1	0	2	0	0	0	0	0	0	42	0	0	1	49	0	0	95	1336

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	32	16	40	0	4	0	16	0	4	580	16	0	20	680	4	0	1412
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	4	0		4
Pedestrians		8				20				0				0			28
Bicycles	0	0	0		0	0	0		0	6	0		0	4	0		10
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

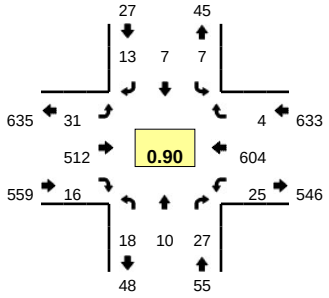
Type of peak hour being reported: Intersection Peak

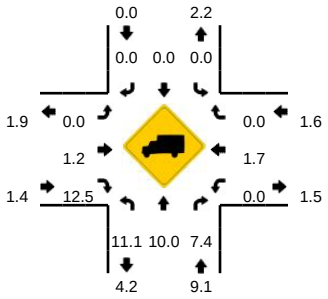
Method for determining peak hour: Total Entering Volume

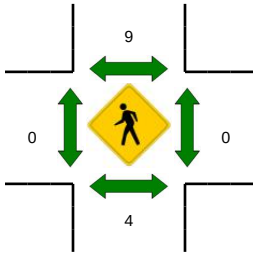
LOCATION: 51st St -- H St
CITY/STATE: Sacramento, CA

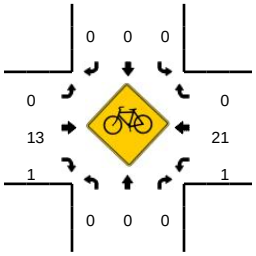
QC JOB #: 10812511
DATE: Tue, Nov 06 2012

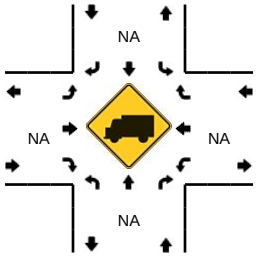
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:35 AM -- 7:50 AM

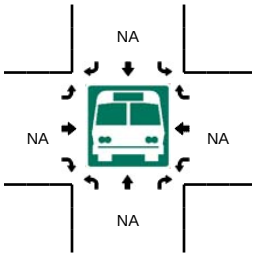












5-Min Count Period Beginning At	51st St (Northbound)				51st St (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	0	0	3	26	1	0	0	20	0	0	50	
7:05 AM	1	1	2	0	1	1	2	0	2	24	0	0	0	26	0	0	60	
7:10 AM	0	1	0	0	0	1	0	0	0	13	1	0	2	34	0	0	52	
7:15 AM	2	1	0	0	1	1	0	0	1	34	0	0	2	52	0	0	94	
7:20 AM	1	0	1	0	1	0	1	0	2	23	2	0	1	43	0	0	75	
7:25 AM	2	0	1	0	1	0	1	0	3	29	1	0	4	33	1	0	76	
7:30 AM	2	0	3	0	2	0	3	0	3	38	0	0	5	49	1	0	106	
7:35 AM	2	1	2	0	2	1	2	0	2	50	1	0	0	52	0	0	115	
7:40 AM	1	1	3	0	0	0	0	0	3	49	0	0	3	50	0	0	110	
7:45 AM	0	0	4	0	1	1	1	0	3	42	3	0	4	68	0	0	127	
7:50 AM	3	0	6	0	0	1	1	0	3	43	3	0	1	41	0	0	102	
7:55 AM	3	1	2	0	0	0	1	0	2	49	1	0	1	50	0	0	110	1077
8:00 AM	2	1	0	0	0	0	2	0	4	49	2	0	4	52	1	0	117	1144
8:05 AM	4	1	1	0	1	0	1	0	0	27	0	0	4	57	1	0	97	1181
8:10 AM	1	1	4	0	0	2	0	0	3	52	2	0	0	36	0	0	101	1230
8:15 AM	0	2	1	0	0	1	0	0	3	35	1	0	2	49	0	0	94	1230
8:20 AM	0	1	0	0	0	0	1	0	2	32	0	0	1	39	0	0	76	1231
8:25 AM	0	1	1	0	1	1	1	0	3	46	3	0	0	61	1	0	119	1274
8:30 AM	1	1	0	0	0	1	0	0	0	36	0	0	1	35	0	0	75	1243
8:35 AM	3	0	1	0	0	1	4	0	2	42	1	0	1	50	0	0	105	1233
8:40 AM	0	1	1	0	1	1	0	0	2	40	2	0	2	36	0	0	86	1209
8:45 AM	1	0	2	0	0	1	1	0	1	41	1	0	2	42	0	0	92	1174
8:50 AM	1	0	1	0	0	0	0	0	4	51	0	0	0	43	0	0	100	1172
8:55 AM	3	2	4	0	0	0	1	0	0	40	1	0	1	57	1	0	110	1172

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	8	36	0	12	8	12	0	32	564	16	0	28	680	0	0	1408
Heavy Trucks	0	0	0		0	0	0		0	16	4		0	8	0		28
Pedestrians		4				8				0				0			12
Bicycles	0	0	0		0	0	0		0	4	0		0	7	0		11
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

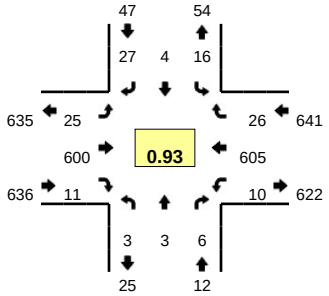
Type of peak hour being reported: Intersection Peak

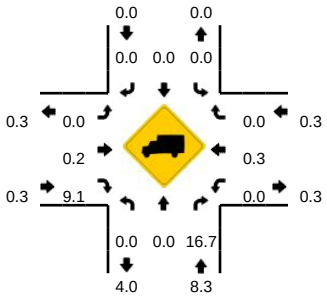
Method for determining peak hour: Total Entering Volume

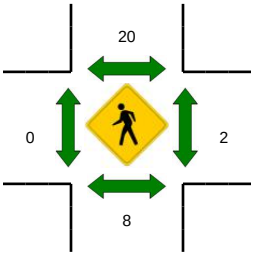
LOCATION: 50th St -- H St
CITY/STATE: Sacramento, CA

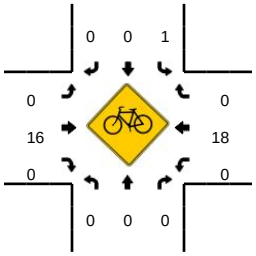
QC JOB #: 10812510
DATE: Tue, Nov 06 2012

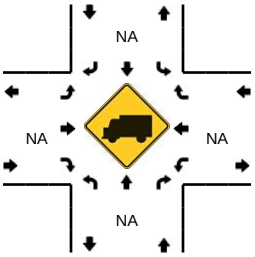
Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:10 PM -- 5:25 PM

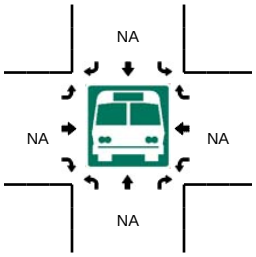












5-Min Count Period Beginning At	50th St (Northbound)				50th St (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	1	1	0	1	0	5	0	1	47	0	0	1	38	1	0	97	
4:05 PM	0	0	0	0	3	0	0	0	0	40	1	0	1	36	1	0	82	
4:10 PM	0	0	0	0	0	0	4	0	1	35	0	0	0	56	0	0	96	
4:15 PM	0	1	0	0	3	3	4	0	0	36	2	0	0	36	1	0	86	
4:20 PM	0	0	0	0	0	0	1	0	3	41	0	0	2	33	2	0	82	
4:25 PM	0	0	1	0	0	0	4	0	2	49	0	0	0	53	1	0	110	
4:30 PM	1	0	2	0	1	2	4	0	0	41	0	0	0	45	2	0	98	
4:35 PM	1	1	0	0	2	0	3	0	2	49	0	0	0	47	1	0	106	
4:40 PM	1	0	0	0	0	0	7	0	0	42	0	0	1	42	0	0	93	
4:45 PM	0	0	1	0	1	1	3	0	1	44	1	0	0	55	4	0	111	
4:50 PM	2	0	0	0	0	0	1	0	3	45	1	0	1	45	1	0	99	
4:55 PM	1	0	0	0	1	0	2	0	1	45	2	0	0	45	2	0	99	1159
5:00 PM	1	0	0	0	2	0	3	0	1	54	0	0	1	41	3	0	106	1168
5:05 PM	0	1	0	0	1	0	3	0	1	41	0	0	1	66	1	0	115	1201
5:10 PM	0	0	0	0	0	0	2	0	2	55	2	0	0	59	3	0	123	1228
5:15 PM	0	1	1	0	0	0	4	0	2	49	0	0	0	49	4	0	110	1252
5:20 PM	0	0	0	0	2	0	2	0	5	59	2	0	2	54	2	0	128	1298
5:25 PM	0	1	1	0	0	1	2	0	3	39	2	0	2	39	1	0	91	1279
5:30 PM	0	0	1	0	3	0	2	0	2	55	0	0	0	54	2	0	119	1300
5:35 PM	1	0	0	0	4	0	3	0	3	52	0	0	0	54	0	0	117	1311
5:40 PM	1	0	0	0	2	2	0	0	2	43	1	0	1	47	2	0	101	1319
5:45 PM	0	0	1	0	0	0	3	0	3	48	1	0	0	50	1	0	107	1315
5:50 PM	0	0	1	0	2	0	1	0	1	60	2	0	1	43	5	0	116	1332
5:55 PM	0	0	1	0	0	1	2	0	0	45	1	0	2	49	2	0	103	1336

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	4	4	0	8	0	32	0	36	652	16	0	8	648	36	0	1444
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	4	0		4
Pedestrians		8				20				0				8			36
Bicycles	0	0	0		1	0	0		0	6	0		0	4	0		11
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

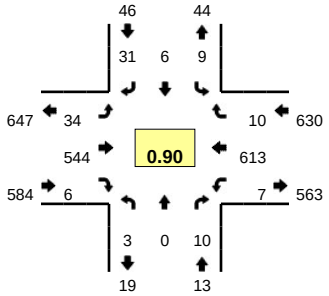
Type of peak hour being reported: Intersection Peak

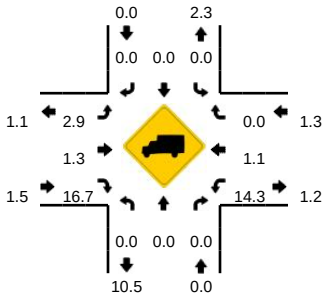
Method for determining peak hour: Total Entering Volume

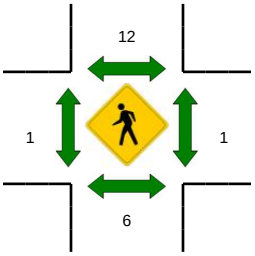
LOCATION: 50th St -- H St
CITY/STATE: Sacramento, CA

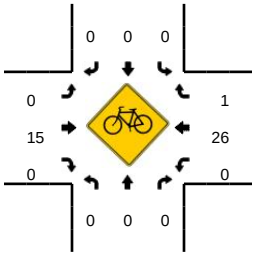
QC JOB #: 10812509
DATE: Tue, Nov 06 2012

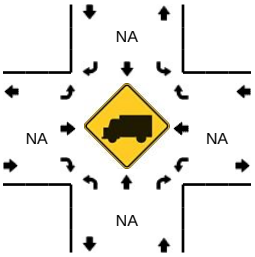
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

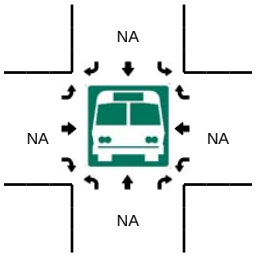












5-Min Count Period Beginning At	50th St (Northbound)				50th St (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	1	0	1	0	1	0	2	28	0	0	0	17	0	0	50	
7:05 AM	0	0	0	0	1	0	1	0	3	24	0	0	0	26	1	0	56	
7:10 AM	0	0	0	0	1	0	2	0	2	13	0	0	1	36	1	0	56	
7:15 AM	0	0	0	0	2	0	4	0	2	30	0	0	0	55	0	0	93	
7:20 AM	0	0	0	0	3	0	4	0	3	27	0	0	1	48	0	0	86	
7:25 AM	1	0	1	0	0	0	4	0	6	30	0	0	3	33	0	0	78	
7:30 AM	1	0	1	0	1	0	3	0	0	41	0	0	0	50	1	0	98	
7:35 AM	0	0	1	0	1	0	3	0	7	48	0	0	1	51	2	0	114	
7:40 AM	0	0	0	0	1	0	7	0	2	45	0	0	0	48	0	0	103	
7:45 AM	0	0	1	0	0	0	3	0	5	48	0	0	0	66	1	0	124	
7:50 AM	1	0	0	0	2	2	2	0	1	50	0	0	0	55	1	0	114	
7:55 AM	0	0	4	0	1	0	1	0	1	50	0	0	1	58	0	0	116	1088
8:00 AM	0	0	2	0	0	0	6	0	3	52	2	0	0	48	1	0	114	1152
8:05 AM	1	0	1	0	0	2	0	0	3	31	0	0	1	52	2	0	93	1189
8:10 AM	0	0	0	0	0	0	4	0	3	55	2	0	0	44	1	0	109	1242
8:15 AM	0	0	0	0	2	1	1	0	5	37	1	0	0	51	0	0	98	1247
8:20 AM	0	0	0	0	0	1	1	0	3	37	0	0	1	35	1	0	79	1240
8:25 AM	0	0	0	0	1	0	0	0	1	50	1	0	3	55	0	0	111	1273
8:30 AM	1	1	0	0	3	0	2	0	1	36	1	0	0	39	2	0	86	1261
8:35 AM	0	0	1	0	0	0	1	0	3	40	2	0	1	47	4	0	99	1246
8:40 AM	0	0	1	0	2	1	1	0	2	42	1	0	0	32	0	0	82	1225
8:45 AM	0	1	1	0	1	1	2	0	3	43	0	0	0	45	0	0	97	1198
8:50 AM	1	1	0	0	1	0	1	0	5	51	0	0	2	44	0	0	106	1190
8:55 AM	0	0	0	0	2	1	1	0	4	40	0	0	2	48	3	0	101	1175

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	0	20	0	12	8	24	0	28	592	0	0	4	716	8	0	1416
Heavy Trucks	0	0	0		0	0	0		0	8	0		0	4	0		12
Pedestrians		4				0				0				4			8
Bicycles	0	0	0		0	0	0		0	6	0		0	4	1		11
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

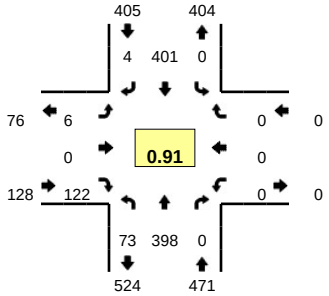
Type of peak hour being reported: Intersection Peak

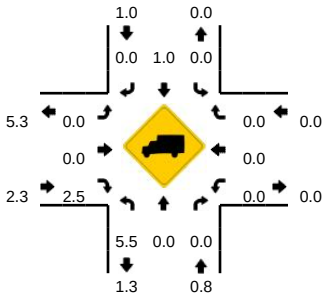
Method for determining peak hour: Total Entering Volume

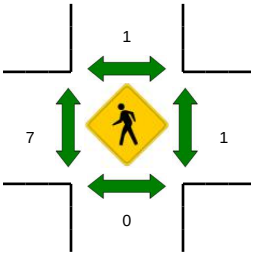
LOCATION: Elvas Ave -- F St
CITY/STATE: Sacramento, CA

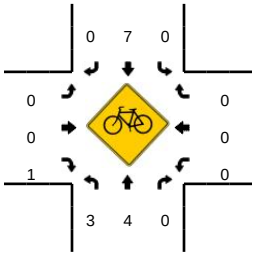
QC JOB #: 10812508
DATE: Tue, Nov 06 2012

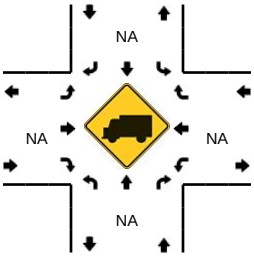
Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

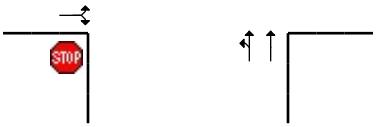


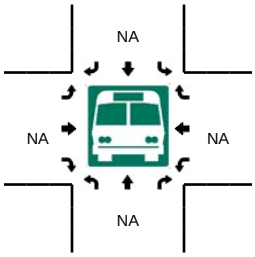












5-Min Count Period Beginning At	Elvas Ave (Northbound)				Elvas Ave (Southbound)				F St (Eastbound)				F St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	23	0	0	0	27	3	0	0	0	7	0	0	0	0	0	63	
4:05 PM	5	24	0	0	0	29	2	0	0	0	8	0	0	0	0	0	68	
4:10 PM	2	25	0	1	0	26	1	0	0	0	13	0	0	0	0	0	68	
4:15 PM	7	26	0	0	0	30	0	0	1	0	7	0	0	0	0	0	71	
4:20 PM	9	29	0	0	0	35	1	0	1	0	6	0	0	0	0	0	81	
4:25 PM	3	32	0	0	0	31	1	0	2	0	8	0	0	0	0	0	77	
4:30 PM	4	27	0	1	0	32	1	0	0	0	17	0	0	0	0	0	82	
4:35 PM	2	34	0	0	0	25	1	0	0	0	12	0	0	0	0	0	74	
4:40 PM	3	22	0	0	0	29	0	0	0	0	8	0	0	0	0	0	62	
4:45 PM	6	37	0	0	0	36	2	0	0	0	9	0	0	0	0	0	90	
4:50 PM	9	32	0	0	0	26	1	0	1	0	11	0	0	0	0	0	80	
4:55 PM	11	27	0	0	0	30	1	0	1	0	13	0	0	0	0	0	83	899
5:00 PM	7	31	0	1	0	27	0	0	0	0	10	0	0	0	0	0	76	912
5:05 PM	1	36	0	0	0	42	0	0	1	0	21	0	0	0	0	0	101	945
5:10 PM	3	35	0	0	0	46	0	0	1	0	10	0	0	0	0	0	95	972
5:15 PM	5	36	0	0	0	35	0	0	0	0	5	0	0	0	0	0	81	982
5:20 PM	3	26	0	0	0	36	0	0	1	0	12	0	0	0	0	0	78	979
5:25 PM	9	33	0	0	0	33	0	0	0	0	6	0	0	0	0	0	81	983
5:30 PM	2	29	0	0	0	33	0	0	1	0	9	0	0	0	0	0	74	975
5:35 PM	6	33	0	0	0	22	0	0	0	0	4	0	0	0	0	0	65	966
5:40 PM	10	43	0	0	0	35	0	0	0	0	12	0	0	0	0	0	100	1004
5:45 PM	0	34	0	0	0	21	0	0	1	0	6	0	0	0	0	0	62	976
5:50 PM	6	30	0	0	0	22	0	0	0	0	2	0	0	0	0	0	60	956
5:55 PM	5	26	0	0	0	28	0	0	0	0	5	0	0	0	0	0	64	937

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	36	428	0	0	0	492	0	0	8	0	144	0	0	0	0	0	1108
Heavy Trucks	4	0	0		0	4	0		0	0	0		0	0	0		8
Pedestrians		0				0				0				0			0
Bicycles	2	1	0		0	2	0		0	0	0		0	0	0		5
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

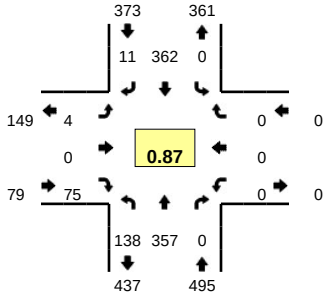
Type of peak hour being reported: Intersection Peak

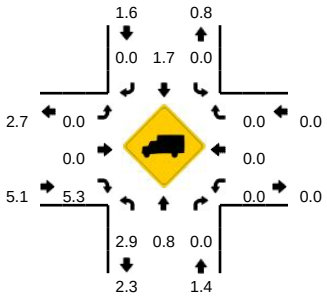
Method for determining peak hour: Total Entering Volume

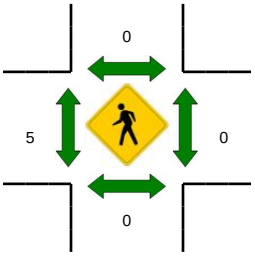
LOCATION: Elvas Ave -- F St
CITY/STATE: Sacramento, CA

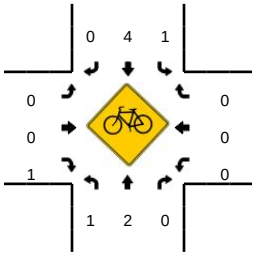
QC JOB #: 10812507
DATE: Tue, Nov 06 2012

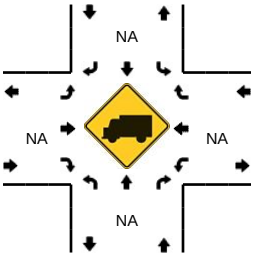
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:50 AM -- 8:05 AM

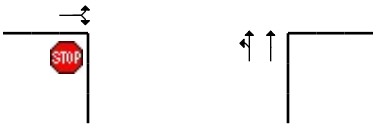


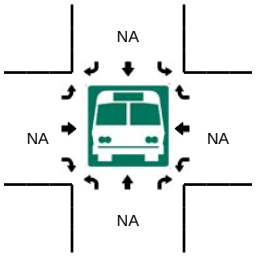












5-Min Count Period Beginning At	Elvas Ave (Northbound)				Elvas Ave (Southbound)				F St (Eastbound)				F St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	3	12	0	1	0	18	1	0	1	0	2	0	0	0	0	0	38	
7:05 AM	7	14	0	0	0	15	0	0	1	0	6	0	0	0	0	0	43	
7:10 AM	5	18	0	0	0	17	0	0	0	0	10	0	0	0	0	0	50	
7:15 AM	7	19	0	0	0	24	0	0	3	0	4	0	0	0	0	0	57	
7:20 AM	11	14	0	1	0	21	1	0	1	0	6	0	0	0	0	0	55	
7:25 AM	5	15	0	0	0	22	1	0	1	0	4	0	0	0	0	0	48	
7:30 AM	12	28	0	0	0	29	0	0	1	0	5	0	0	0	0	0	75	
7:35 AM	8	27	0	0	0	20	0	0	1	0	7	0	0	0	0	0	63	
7:40 AM	13	23	0	0	0	31	2	0	1	0	5	0	0	0	0	0	75	
7:45 AM	13	32	0	0	0	32	2	0	0	0	6	0	0	0	0	0	85	
7:50 AM	12	32	0	0	0	36	1	0	0	0	10	0	0	0	0	0	91	
7:55 AM	15	31	0	0	0	38	0	0	0	0	10	0	0	0	0	0	94	774
8:00 AM	9	41	0	0	0	28	0	0	0	0	8	0	0	0	0	0	86	822
8:05 AM	16	35	0	0	0	30	3	0	0	0	5	0	0	0	0	0	89	868
8:10 AM	7	20	0	0	0	34	1	0	0	0	2	0	0	0	0	0	64	882
8:15 AM	14	39	0	0	0	17	0	0	1	0	6	0	0	0	0	0	77	902
8:20 AM	12	22	0	0	0	36	1	0	0	0	5	0	0	0	0	0	76	923
8:25 AM	7	27	0	0	0	31	1	0	0	0	6	0	0	0	0	0	72	947
8:30 AM	3	18	0	0	0	24	0	0	1	0	5	0	0	0	0	0	51	923
8:35 AM	6	30	0	0	0	22	0	0	1	0	1	0	0	0	0	0	60	920
8:40 AM	6	30	0	0	0	22	0	0	0	0	2	0	0	0	0	0	60	905
8:45 AM	12	22	0	0	0	23	0	0	1	0	6	0	0	0	0	0	64	884
8:50 AM	4	16	0	0	0	16	1	0	0	0	1	0	0	0	0	0	38	831
8:55 AM	19	34	0	0	0	31	2	0	3	0	7	0	0	0	0	0	96	833

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	144	416	0	0	0	408	4	0	0	0	112	0	0	0	0	0	1084
Heavy Trucks	0	0	0		0	8	0		0	0	8		0	0	0		16
Pedestrians		0				0				8				0			8
Bicycles	0	1	0		0	1	0		0	0	0		0	0	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

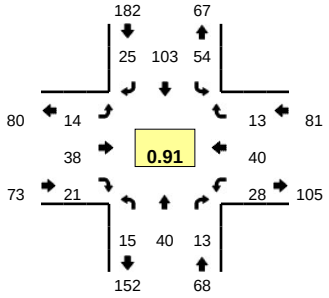
Type of peak hour being reported: Intersection Peak

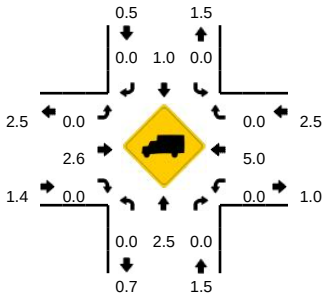
Method for determining peak hour: Total Entering Volume

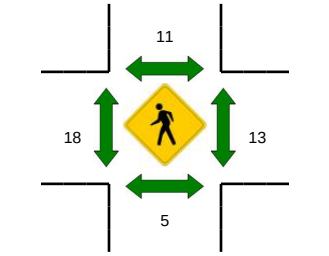
LOCATION: 53rd St -- F St
CITY/STATE: Sacramento, CA

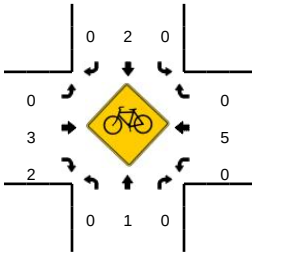
QC JOB #: 10812506
DATE: Tue, Nov 06 2012

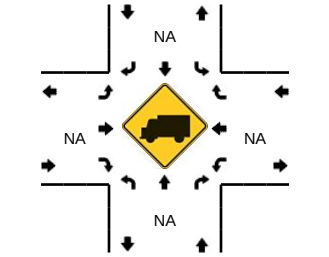
Peak-Hour: 4:35 PM -- 5:35 PM
Peak 15-Min: 4:35 PM -- 4:50 PM

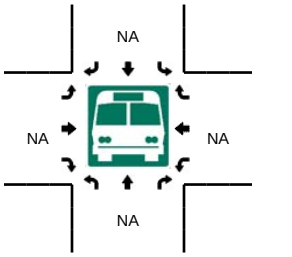












5-Min Count Period Beginning At	53rd St (Northbound)				53rd St (Southbound)				F St (Eastbound)				F St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	3	1	0	3	5	2	0	1	4	2	0	2	2	2	0	29	
4:05 PM	0	3	0	0	6	8	1	0	2	4	5	0	2	1	5	0	37	
4:10 PM	1	2	1	0	6	11	6	0	1	3	3	0	0	1	2	0	37	
4:15 PM	1	0	0	0	4	6	1	0	0	2	3	0	0	3	5	0	25	
4:20 PM	3	0	2	0	6	10	0	0	1	3	1	0	0	4	3	0	33	
4:25 PM	0	0	1	0	8	5	2	0	0	1	0	0	1	3	1	0	22	
4:30 PM	1	1	2	0	7	7	2	0	0	4	1	0	4	2	1	0	32	
4:35 PM	0	4	1	0	6	10	2	0	0	5	1	0	2	3	1	0	35	
4:40 PM	2	4	0	0	7	13	2	0	2	4	3	0	0	1	0	0	38	
4:45 PM	1	5	2	0	3	8	5	0	1	3	2	0	2	5	1	0	38	
4:50 PM	0	2	1	0	8	5	1	0	2	4	3	0	0	4	2	0	32	
4:55 PM	1	3	1	0	3	6	2	0	2	0	0	0	3	5	3	0	29	387
5:00 PM	2	6	2	0	4	9	1	0	1	4	1	0	5	5	2	0	42	400
5:05 PM	3	3	0	0	5	13	4	0	1	4	2	0	3	2	0	0	40	403
5:10 PM	1	2	1	0	0	8	3	0	1	4	1	0	2	1	2	0	26	392
5:15 PM	0	5	1	0	1	7	2	0	0	2	4	0	2	5	0	0	29	396
5:20 PM	1	2	2	0	9	6	0	0	4	4	1	0	1	2	1	0	33	396
5:25 PM	2	1	0	0	2	8	2	0	0	1	3	0	3	5	1	0	28	402
5:30 PM	2	3	2	0	6	10	1	0	0	3	0	0	5	2	0	0	34	404
5:35 PM	2	5	1	0	2	4	3	0	0	2	3	0	0	2	2	0	26	395
5:40 PM	1	3	1	0	2	6	2	0	2	4	1	0	3	4	3	0	32	389
5:45 PM	0	5	2	0	4	8	0	0	1	1	1	0	0	1	0	0	23	374
5:50 PM	0	5	0	0	1	4	0	0	3	2	0	0	0	2	1	0	18	360
5:55 PM	1	3	1	0	3	4	1	0	0	3	3	1	0	3	1	0	24	355

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	52	12	0	64	124	36	0	12	48	24	0	16	36	8	0	444
Heavy Trucks	0	4	0		0	0	0		0	4	0		0	0	0		8
Pedestrians		0				20				20				8			48
Bicycles	0	0	0		0	0	0		0	1	0		0	1	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

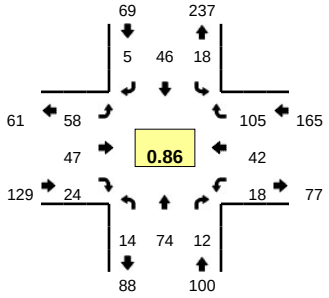
Type of peak hour being reported: Intersection Peak

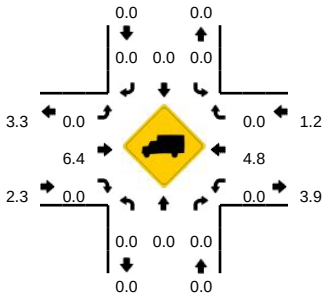
Method for determining peak hour: Total Entering Volume

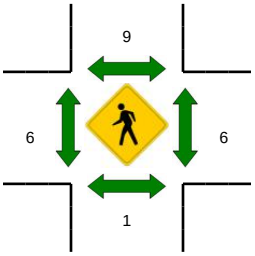
LOCATION: 53rd St -- F St
CITY/STATE: Sacramento, CA

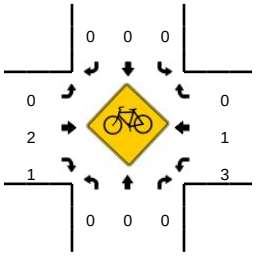
QC JOB #: 10812505
DATE: Tue, Nov 06 2012

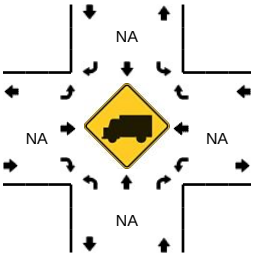
Peak-Hour: 7:25 AM -- 8:25 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

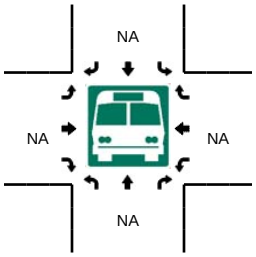












5-Min Count Period Beginning At	53rd St (Northbound)				53rd St (Southbound)				F St (Eastbound)				F St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	8	0	0	0	1	1	0	0	3	5	0	1	3	1	0	23	
7:05 AM	1	3	0	0	1	0	0	0	2	3	1	0	2	1	5	0	19	
7:10 AM	0	2	0	0	2	2	0	0	0	4	1	0	0	5	3	0	19	
7:15 AM	1	6	0	0	3	16	0	0	1	2	0	0	3	3	3	0	38	
7:20 AM	1	5	1	0	3	5	1	0	4	2	1	0	3	5	8	0	39	
7:25 AM	0	3	1	0	6	8	2	0	4	1	2	0	1	2	3	0	33	
7:30 AM	1	4	2	0	2	7	0	0	2	2	2	0	1	3	12	0	38	
7:35 AM	0	7	2	0	1	6	0	0	3	4	2	0	1	1	6	0	33	
7:40 AM	0	7	3	0	2	4	0	0	5	7	1	0	1	2	13	0	45	
7:45 AM	1	4	1	0	1	5	0	0	4	6	7	0	2	3	12	0	46	
7:50 AM	1	7	0	0	1	2	0	0	6	6	2	0	1	8	7	0	41	
7:55 AM	2	8	1	0	2	7	0	0	7	4	1	0	1	3	11	0	47	421
8:00 AM	1	7	0	0	0	2	0	0	7	4	3	0	1	2	8	0	35	433
8:05 AM	1	7	0	0	0	1	0	0	3	2	0	0	0	7	9	0	30	444
8:10 AM	1	7	2	0	0	1	1	0	3	6	1	0	4	1	7	0	34	459
8:15 AM	2	5	0	0	1	2	2	0	5	2	1	0	3	2	11	0	36	457
8:20 AM	4	8	0	0	2	1	0	0	9	3	2	0	2	8	6	0	45	463
8:25 AM	1	7	3	0	0	0	0	0	3	5	1	0	1	2	5	0	28	458
8:30 AM	0	7	1	0	0	3	0	0	2	5	1	0	2	3	1	0	25	445
8:35 AM	1	10	1	0	0	0	0	0	2	2	0	0	3	4	3	0	26	438
8:40 AM	2	7	0	0	1	5	2	0	3	7	0	0	0	3	5	0	35	428
8:45 AM	1	10	1	0	1	2	1	0	5	3	1	0	0	2	10	0	37	419
8:50 AM	1	10	1	0	1	3	0	0	7	1	5	0	2	1	3	0	35	413
8:55 AM	3	6	1	0	2	3	2	0	0	3	1	0	2	5	12	0	40	406

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	16	76	8	0	16	56	0	0	68	64	40	0	16	56	120	0	536
Heavy Trucks	0	0	0		0	0	0		0	4	0		0	0	0		4
Pedestrians		0				12				8				12			32
Bicycles	0	0	0		0	0	0		0	1	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

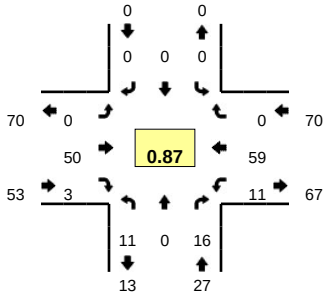
Type of peak hour being reported: Intersection Peak

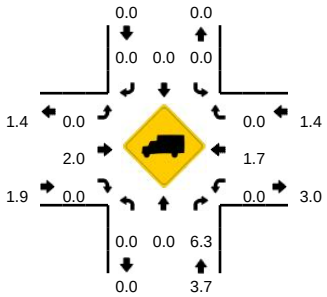
Method for determining peak hour: Total Entering Volume

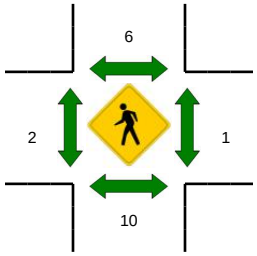
LOCATION: 51st St -- F St
CITY/STATE: Sacramento, CA

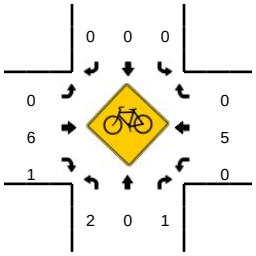
QC JOB #: 10812504
DATE: Tue, Nov 06 2012

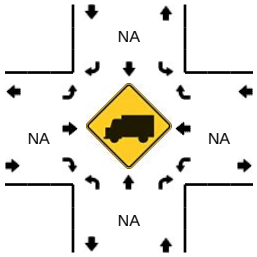
Peak-Hour: 4:40 PM -- 5:40 PM
Peak 15-Min: 4:40 PM -- 4:55 PM

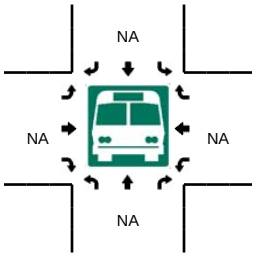












5-Min Count Period Beginning At	51st St (Northbound)				51st St (Southbound)				F St (Eastbound)				F St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	0	0	0	0	0	0	0	0	6	0	0	3	4	0	1	15	
4:05 PM	2	0	1	0	0	0	0	0	0	7	0	0	0	1	0	0	11	
4:10 PM	0	0	4	0	0	0	0	0	0	4	0	0	1	4	0	0	13	
4:15 PM	0	0	1	0	0	0	0	0	0	2	1	0	2	1	0	0	7	
4:20 PM	1	0	0	0	0	0	0	0	0	4	0	0	2	5	0	0	12	
4:25 PM	1	0	1	0	0	0	0	0	0	1	0	0	0	4	0	0	7	
4:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	2	5	0	0	10	
4:35 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	8	
4:40 PM	2	0	4	0	0	0	0	0	0	5	0	0	2	5	0	0	18	
4:45 PM	0	0	2	0	0	0	0	0	0	2	0	0	3	6	0	0	13	
4:50 PM	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	0	12	
4:55 PM	0	0	2	0	0	0	0	0	0	5	0	0	0	7	0	0	14	140
5:00 PM	0	0	1	0	0	0	0	0	0	2	1	0	1	8	0	0	13	138
5:05 PM	3	0	1	0	0	0	0	0	0	3	0	0	0	4	0	0	11	138
5:10 PM	1	0	0	0	0	0	0	0	0	5	0	0	1	3	0	0	10	135
5:15 PM	1	0	0	0	0	0	0	0	0	7	0	0	2	4	0	0	14	142
5:20 PM	1	0	2	0	0	0	0	0	0	6	0	0	0	4	0	0	13	143
5:25 PM	2	0	0	0	0	0	0	0	0	2	0	0	0	7	0	0	11	147
5:30 PM	0	0	0	0	0	0	0	0	0	4	1	0	0	2	0	0	7	144
5:35 PM	1	0	4	0	0	0	0	0	0	4	0	0	1	3	0	1	14	150
5:40 PM	0	0	2	0	0	0	0	0	0	5	0	0	1	1	0	1	10	142
5:45 PM	3	0	5	0	0	0	0	0	0	3	0	0	1	1	0	1	14	143
5:50 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	3	0	0	5	136
5:55 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	3	0	0	8	130

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	0	24	0	0	0	0	0	0	48	4	0	20	68	0	0	172
Heavy Trucks	0	0	4		0	0	0		0	4	0		0	0	0		8
Pedestrians		0				4				0				0			4
Bicycles	0	0	0		0	0	0		0	3	0		0	1	0		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

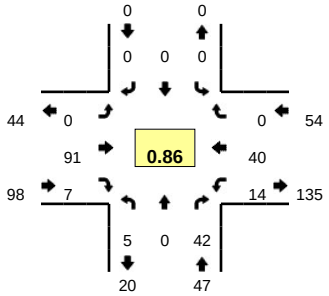
Type of peak hour being reported: Intersection Peak

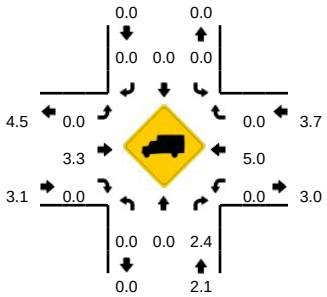
Method for determining peak hour: Total Entering Volume

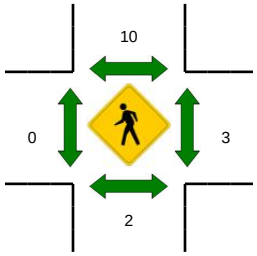
LOCATION: 51st St -- F St
CITY/STATE: Sacramento, CA

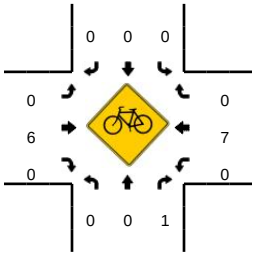
QC JOB #: 10812503
DATE: Tue, Nov 06 2012

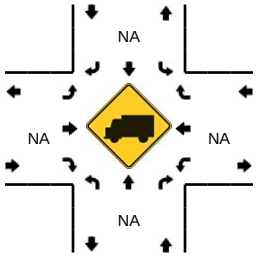
Peak-Hour: 7:25 AM -- 8:25 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

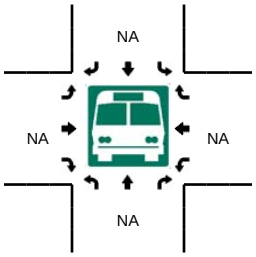












5-Min Count Period Beginning At	51st St (Northbound)				51st St (Southbound)				F St (Eastbound)				F St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	3	0	0	0	0	0	0	6	0	0	1	1	0	0	11	
7:05 AM	0	0	4	0	0	0	0	0	0	2	1	0	0	1	0	0	8	
7:10 AM	0	0	0	0	0	0	0	0	0	4	0	0	2	3	0	0	9	
7:15 AM	1	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	4	
7:20 AM	0	0	2	0	0	0	0	0	0	2	0	0	3	3	0	0	10	
7:25 AM	1	0	3	0	0	0	0	0	0	8	0	0	0	2	0	0	14	
7:30 AM	0	0	4	1	0	0	0	0	0	5	1	0	0	3	0	0	14	
7:35 AM	1	0	3	0	0	0	0	0	0	8	0	0	2	1	0	1	16	
7:40 AM	2	0	2	0	0	0	0	0	0	8	0	0	2	2	0	0	16	
7:45 AM	0	0	3	0	0	0	0	0	0	16	1	0	0	3	0	0	23	
7:50 AM	0	0	3	0	0	0	0	0	0	7	0	0	1	5	0	0	16	
7:55 AM	0	0	2	0	0	0	0	0	0	10	2	0	3	2	0	0	19	160
8:00 AM	0	0	7	0	0	0	0	0	0	7	1	0	0	3	0	0	18	167
8:05 AM	0	0	2	0	0	0	0	0	0	1	2	0	0	8	0	0	13	172
8:10 AM	0	0	4	0	0	0	0	0	0	8	0	0	0	1	0	1	14	177
8:15 AM	0	0	5	0	0	0	0	0	0	5	0	0	1	3	0	0	14	187
8:20 AM	0	0	4	0	0	0	0	0	0	8	0	0	3	7	0	0	22	199
8:25 AM	1	0	2	0	0	0	0	0	0	6	0	0	0	3	0	0	12	197
8:30 AM	1	0	0	0	0	0	0	0	0	6	0	0	1	3	0	0	11	194
8:35 AM	0	0	2	0	0	0	0	0	0	2	0	0	1	5	0	0	10	188
8:40 AM	0	0	3	0	0	0	0	0	0	8	0	0	0	5	0	0	16	188
8:45 AM	0	0	1	0	0	0	0	0	0	3	0	0	0	3	0	0	7	172
8:50 AM	1	0	3	0	0	0	0	0	0	9	0	0	1	2	0	0	16	172
8:55 AM	3	0	1	0	0	0	0	0	0	6	0	0	3	6	0	0	19	172

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	32	0	0	0	0	0	0	132	12	0	16	40	0	0	232
Heavy Trucks	0	0	0		0	0	0		0	4	0		0	0	0		4
Pedestrians		0				16				0				4			20
Bicycles	0	0	0		0	0	0		0	1	0		0	1	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

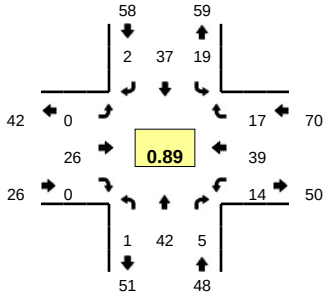
Type of peak hour being reported: Intersection Peak

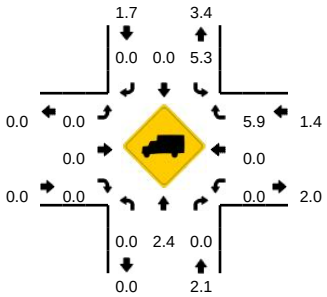
Method for determining peak hour: Total Entering Volume

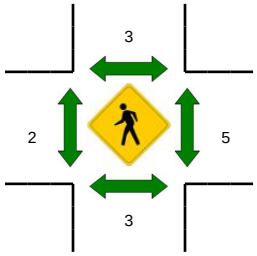
LOCATION: 50th St -- F St
CITY/STATE: Sacramento, CA

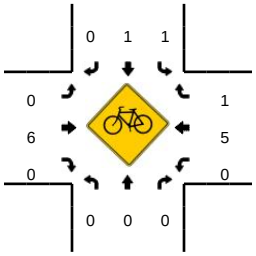
QC JOB #: 10812502
DATE: Tue, Nov 06 2012

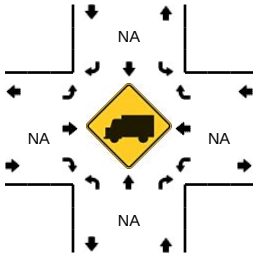
Peak-Hour: 4:40 PM -- 5:40 PM
Peak 15-Min: 5:15 PM -- 5:30 PM

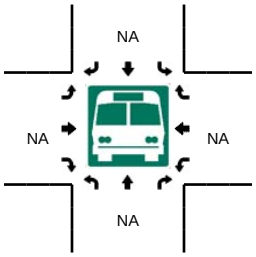












5-Min Count Period Beginning At	50th St (Northbound)				50th St (Southbound)				F St (Eastbound)				F St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	3	0	0	0	3	0	0	0	5	0	0	0	2	4	0	17	
4:05 PM	0	0	0	0	4	2	0	0	0	5	1	0	0	2	3	0	17	
4:10 PM	0	1	0	0	0	4	1	0	0	4	0	0	1	1	1	0	13	
4:15 PM	0	2	0	0	2	5	0	0	0	1	1	0	1	2	0	0	14	
4:20 PM	1	2	1	0	2	0	0	0	0	2	1	0	1	0	5	0	15	
4:25 PM	0	2	0	0	1	6	0	0	1	0	0	0	3	1	0	0	14	
4:30 PM	0	3	0	0	0	3	0	0	1	3	0	0	1	2	1	0	14	
4:35 PM	0	3	0	0	0	2	0	0	2	4	0	0	2	2	1	0	16	
4:40 PM	0	0	0	0	1	6	0	0	0	2	0	0	1	3	4	0	17	
4:45 PM	0	4	0	0	3	3	1	0	0	1	0	0	1	2	1	0	16	
4:50 PM	0	3	1	0	0	0	0	0	0	4	0	0	2	3	2	0	15	
4:55 PM	0	3	1	0	0	3	0	0	0	0	0	0	0	4	2	0	13	181
5:00 PM	0	3	1	0	3	4	0	0	0	2	0	0	1	5	0	0	19	183
5:05 PM	0	3	0	0	1	2	0	0	0	2	0	0	1	4	2	0	15	181
5:10 PM	0	3	0	0	2	2	0	0	0	2	0	0	1	3	2	0	15	183
5:15 PM	0	8	0	0	4	2	1	0	0	2	0	0	2	3	0	0	22	191
5:20 PM	1	5	1	0	1	2	0	0	0	4	0	0	1	2	1	0	18	194
5:25 PM	0	3	1	0	0	4	0	0	0	2	0	0	2	2	3	0	17	197
5:30 PM	0	4	0	0	1	2	0	0	0	2	0	0	1	6	0	0	16	199
5:35 PM	0	3	0	0	3	7	0	0	0	3	0	0	1	2	0	0	19	202
5:40 PM	0	1	1	0	0	3	0	0	0	3	0	0	0	0	1	0	9	194
5:45 PM	0	2	0	0	2	2	1	0	1	1	0	0	2	1	2	0	14	192
5:50 PM	0	3	1	0	1	2	0	0	0	0	0	0	0	1	0	0	8	185
5:55 PM	0	2	0	0	0	2	0	0	0	4	0	0	1	1	1	0	11	183

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	64	8	0	20	32	4	0	0	32	0	0	20	28	16	0	228
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	4		4
Pedestrians		0				4				8				4			16
Bicycles	0	0	0		0	1	0		0	3	0		0	0	0		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

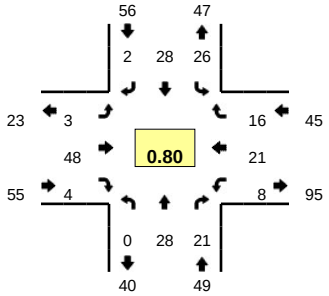
Type of peak hour being reported: Intersection Peak

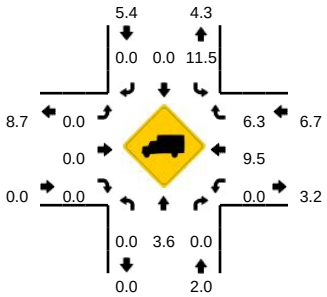
Method for determining peak hour: Total Entering Volume

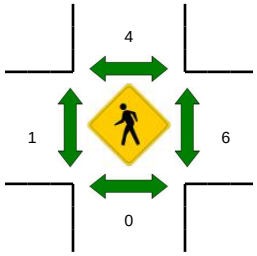
LOCATION: 50th St -- F St
CITY/STATE: Sacramento, CA

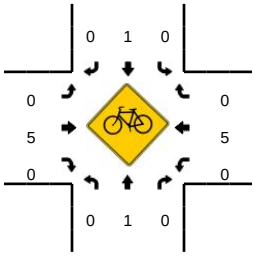
QC JOB #: 10812501
DATE: Tue, Nov 06 2012

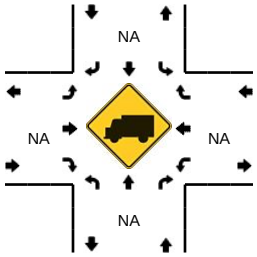
Peak-Hour: 7:25 AM -- 8:25 AM
Peak 15-Min: 7:35 AM -- 7:50 AM

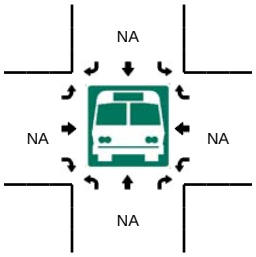












5-Min Count Period Beginning At	50th St (Northbound)				50th St (Southbound)				F St (Eastbound)				F St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	4	0	0	3	1	0	0	0	1	0	0	0	1	0	0	10	
7:05 AM	0	4	1	0	1	1	0	0	1	2	0	0	1	1	0	0	12	
7:10 AM	0	2	0	0	1	5	0	0	0	1	0	0	1	2	1	0	13	
7:15 AM	0	2	0	0	2	5	0	0	1	0	0	0	0	0	2	0	12	
7:20 AM	0	3	1	0	1	3	0	0	0	1	0	0	1	1	1	0	12	
7:25 AM	0	3	3	0	1	1	1	0	0	5	0	0	2	0	0	0	16	
7:30 AM	0	1	1	0	1	2	0	0	1	1	0	0	1	1	0	0	9	
7:35 AM	0	7	2	0	2	5	0	0	0	6	0	0	0	4	0	0	26	
7:40 AM	0	2	1	0	3	3	0	0	0	3	0	0	2	0	2	0	16	
7:45 AM	0	2	3	0	6	0	0	0	0	7	1	0	1	2	0	0	22	
7:50 AM	0	0	2	0	3	3	0	0	0	4	1	0	0	3	2	0	18	
7:55 AM	0	1	1	0	1	1	0	0	1	7	0	0	0	3	2	0	17	183
8:00 AM	0	1	2	0	3	6	0	0	0	3	1	0	0	1	2	0	19	192
8:05 AM	0	3	1	0	2	0	0	0	0	2	1	0	1	5	2	0	17	197
8:10 AM	0	1	1	0	3	5	1	0	1	4	0	0	0	1	0	0	17	201
8:15 AM	0	6	1	0	0	2	0	0	0	2	0	0	0	1	1	0	13	202
8:20 AM	0	1	3	0	1	0	0	0	0	4	0	0	1	0	5	0	15	205
8:25 AM	0	1	0	0	0	1	0	0	0	7	0	0	1	1	2	0	13	202
8:30 AM	0	3	0	0	2	2	0	0	0	1	0	0	1	1	2	0	12	205
8:35 AM	0	3	2	0	1	1	0	0	0	1	0	0	1	3	1	0	13	192
8:40 AM	0	2	2	0	2	2	0	0	0	5	1	0	0	2	3	0	19	195
8:45 AM	0	3	0	0	1	4	0	0	0	1	0	0	0	0	2	0	11	184
8:50 AM	1	6	3	0	4	3	0	0	0	3	0	0	0	1	1	0	22	188
8:55 AM	0	7	1	0	0	2	0	0	0	5	1	0	1	3	3	0	23	194

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	44	24	0	44	32	0	0	0	64	4	0	12	24	8	0	256
Heavy Trucks	0	0	0		8	0	0		0	0	0		0	4	0		12
Pedestrians		0				0				0				4			4
Bicycles	0	0	0		0	0	0		0	3	0		0	4	0		7
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/19/2012 5:57 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of report: Tube Count - Volume Data

LOCATION: C St btwn 51st St and Elvas Ave
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812537
DIRECTION: WB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		2				2			2	
1:00 AM		0				0			0	
2:00 AM		0				0			0	
3:00 AM		0				0			0	
4:00 AM		3				3			3	
5:00 AM		2				2			2	
6:00 AM		8				8			8	
7:00 AM		10				10			10	
8:00 AM		**17**				**17**			**17**	
9:00 AM		13				13			13	
10:00 AM		17				17			17	
11:00 AM		17				17			17	
12:00 PM		34				34			34	
1:00 PM		26				26			26	
2:00 PM		15				15			15	
3:00 PM		34				34			34	
4:00 PM		37				37			37	
5:00 PM		**47**				**47**			**47**	
6:00 PM		22				22			22	
7:00 PM		13				13			13	
8:00 PM		10				10			10	
9:00 PM		6				6			6	
10:00 PM		7				7			7	
11:00 PM		2				2			2	
Day Total		342				342			342	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		8:00 AM 17				8:00 AM 17			8:00 AM 17	
PM Peak Volume		5:00 PM 47				5:00 PM 47			5:00 PM 47	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: C St btwn 51st St and Elvas Ave
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812537
DIRECTION: WB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	16-25	2
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
4:00 AM	1	0	2	0	0	0	0	0	0	0	0	0	0	0	3	16-25	2
5:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	16-25	2
6:00 AM	0	1	5	2	0	0	0	0	0	0	0	0	0	0	8	21-30	7
7:00 AM	0	2	7	1	0	0	0	0	0	0	0	0	0	0	10	16-25	9
8:00 AM	0	**6**	10	1	0	0	0	0	0	0	0	0	0	0	**17**	16-25	16
9:00 AM	**2**	2	6	**3**	0	0	0	0	0	0	0	0	0	0	13	21-30	9
10:00 AM	1	3	10	3	0	0	0	0	0	0	0	0	0	0	17	21-30	13
11:00 AM	1	1	**12**	3	0	0	0	0	0	0	0	0	0	0	17	21-30	15
12:00 PM	2	6	19	6	**1**	0	0	0	0	0	0	0	0	0	34	21-30	25
1:00 PM	**5**	4	14	3	0	0	0	0	0	0	0	0	0	0	26	16-25	18
2:00 PM	2	2	10	1	0	0	0	0	0	0	0	0	0	0	15	16-25	12
3:00 PM	2	3	15	**13**	1	0	0	0	0	0	0	0	0	0	34	21-30	28
4:00 PM	4	**8**	21	4	0	0	0	0	0	0	0	0	0	0	37	16-25	29
5:00 PM	4	6	**24**	13	0	0	0	0	0	0	0	0	0	0	**47**	21-30	37
6:00 PM	3	3	14	2	0	0	0	0	0	0	0	0	0	0	22	16-25	17
7:00 PM	0	2	11	0	0	0	0	0	0	0	0	0	0	0	13	18-27	12
8:00 PM	0	1	7	2	0	0	0	0	0	0	0	0	0	0	10	21-30	8
9:00 PM	0	2	3	1	0	0	0	0	0	0	0	0	0	0	6	20-29	4
10:00 PM	0	2	3	2	0	0	0	0	0	0	0	0	0	0	7	21-30	5
11:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	21-30	2
Day Total	27	55	197	61	2	0	0	0	0	0	0	0	0	0	342	21-30	258
Percent	7.9%	16.1%	57.6%	17.8%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
342

AM Peak Volume	9:00 AM 2	8:00 AM 6	11:00 AM 12	9:00 AM 3			8:00 AM 17	
PM Peak Volume	1:00 PM 5	4:00 PM 8	5:00 PM 24	3:00 PM 13	12:00 PM 1		5:00 PM 47	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: C St btwn 51st St and Elvas Ave
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812537
DIRECTION: WB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	27	55	197	61	2	0	0	0	0	0	0	0	0	0	342	21-30	258
Percent	7.9%	16.1%	57.6%	17.8%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	7.9%	24.0%	81.6%	99.4%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
342

85th Percentile 25 MPH

Mean Speed(Average): 21 MPH

Median 22 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: C St btwn 51st St and Elvas Ave
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812537
DIRECTION: EB/WB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		4				4			4	
1:00 AM		0				0			0	
2:00 AM		1				1			1	
3:00 AM		0				0			0	
4:00 AM		4				4			4	
5:00 AM		6				6			6	
6:00 AM		24				24			24	
7:00 AM		**57**				**57**			**57**	
8:00 AM		57				57			57	
9:00 AM		47				47			47	
10:00 AM		38				38			38	
11:00 AM		55				55			55	
12:00 PM		67				67			67	
1:00 PM		63				63			63	
2:00 PM		37				37			37	
3:00 PM		70				70			70	
4:00 PM		76				76			76	
5:00 PM		**86**				**86**			**86**	
6:00 PM		52				52			52	
7:00 PM		23				23			23	
8:00 PM		15				15			15	
9:00 PM		8				8			8	
10:00 PM		14				14			14	
11:00 PM		6				6			6	
Day Total		810				810			810	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		7:00 AM 57				7:00 AM 57			7:00 AM 57	
PM Peak Volume		5:00 PM 86				5:00 PM 86			5:00 PM 86	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: C St btwn 51st St and Elvas Ave
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812537
DIRECTION: EB/WB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4	16-25	4
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	11-20	1
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
4:00 AM	1	0	3	0	0	0	0	0	0	0	0	0	0	0	4	16-25	3
5:00 AM	0	3	2	1	0	0	0	0	0	0	0	0	0	0	6	16-25	5
6:00 AM	1	4	16	3	0	0	0	0	0	0	0	0	0	0	24	16-25	20
7:00 AM	4	11	35	7	0	0	0	0	0	0	0	0	0	0	**57**	16-25	46
8:00 AM	2	**14**	32	**8**	**1**	0	0	0	0	0	0	0	0	0	57	16-25	46
9:00 AM	**5**	11	26	5	0	0	0	0	0	0	0	0	0	0	47	16-25	37
10:00 AM	5	9	16	8	0	0	0	0	0	0	0	0	0	0	38	16-25	25
11:00 AM	1	8	**39**	7	0	0	0	0	0	0	0	0	0	0	55	16-25	47
12:00 PM	3	9	**44**	10	**1**	0	0	0	0	0	0	0	0	0	67	21-30	54
1:00 PM	5	15	34	9	0	0	0	0	0	0	0	0	0	0	63	16-25	48
2:00 PM	5	6	22	4	0	0	0	0	0	0	0	0	0	0	37	18-27	27
3:00 PM	3	13	37	**16**	1	0	0	0	0	0	0	0	0	0	70	21-30	53
4:00 PM	5	23	43	5	0	0	0	0	0	0	0	0	0	0	76	16-25	66
5:00 PM	**7**	**26**	39	14	0	0	0	0	0	0	0	0	0	0	**86**	16-25	65
6:00 PM	3	19	26	4	0	0	0	0	0	0	0	0	0	0	52	16-25	45
7:00 PM	0	3	19	1	0	0	0	0	0	0	0	0	0	0	23	16-25	22
8:00 PM	0	2	11	2	0	0	0	0	0	0	0	0	0	0	15	21-30	12
9:00 PM	0	3	4	1	0	0	0	0	0	0	0	0	0	0	8	16-25	7
10:00 PM	1	4	7	2	0	0	0	0	0	0	0	0	0	0	14	18-27	10
11:00 PM	0	1	4	1	0	0	0	0	0	0	0	0	0	0	6	16-25	5
Day Total	51	188	460	108	3	0	0	0	0	0	0	0	0	0	810	16-25	648
Percent	6.3%	23.2%	56.8%	13.3%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
810

AM Peak Volume	9:00 AM 5	8:00 AM 14	11:00 AM 39	8:00 AM 8	8:00 AM 1		7:00 AM 57	
PM Peak Volume	5:00 PM 7	5:00 PM 26	12:00 PM 44	3:00 PM 16	12:00 PM 1		5:00 PM 86	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: C St btwn 51st St and Elvas Ave
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812537
DIRECTION: EB/WB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	51	188	460	108	3	0	0	0	0	0	0	0	0	0	810	16-25	648
Percent	6.3%	23.2%	56.8%	13.3%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	6.3%	29.5%	86.3%	99.6%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
810

85th Percentile 24 MPH

Mean Speed(Average): 21 MPH

Median 21 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: C St btwn 51st St and Elvas Ave
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812537
DIRECTION: EB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		2				2			2	
1:00 AM		0				0			0	
2:00 AM		1				1			1	
3:00 AM		0				0			0	
4:00 AM		1				1			1	
5:00 AM		4				4			4	
6:00 AM		16				16			16	
7:00 AM		**47**				**47**			**47**	
8:00 AM		40				40			40	
9:00 AM		34				34			34	
10:00 AM		21				21			21	
11:00 AM		38				38			38	
12:00 PM		33				33			33	
1:00 PM		37				37			37	
2:00 PM		22				22			22	
3:00 PM		36				36			36	
4:00 PM		**39**				**39**			**39**	
5:00 PM		39				39			39	
6:00 PM		30				30			30	
7:00 PM		10				10			10	
8:00 PM		5				5			5	
9:00 PM		2				2			2	
10:00 PM		7				7			7	
11:00 PM		4				4			4	
Day Total		468				468			468	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		7:00 AM 47				7:00 AM 47			7:00 AM 47	
PM Peak Volume		4:00 PM 39				4:00 PM 39			4:00 PM 39	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: C St btwn 51st St and Elvas Ave
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812537
DIRECTION: EB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	11-20	2
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	11-20	1
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
4:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16-25	1
5:00 AM	0	3	0	1	0	0	0	0	0	0	0	0	0	0	4	11-20	3
6:00 AM	1	3	11	1	0	0	0	0	0	0	0	0	0	0	16	18-27	13
7:00 AM	**4**	**9**	**28**	6	0	0	0	0	0	0	0	0	0	0	**47**	16-25	37
8:00 AM	2	8	22	**7**	**1**	0	0	0	0	0	0	0	0	0	40	20-29	29
9:00 AM	3	9	20	2	0	0	0	0	0	0	0	0	0	0	34	16-25	29
10:00 AM	4	6	6	5	0	0	0	0	0	0	0	0	0	0	21	20-29	11
11:00 AM	0	7	27	4	0	0	0	0	0	0	0	0	0	0	38	16-25	34
12:00 PM	1	3	**25**	4	0	0	0	0	0	0	0	0	0	0	33	21-30	28
1:00 PM	0	11	20	**6**	0	0	0	0	0	0	0	0	0	0	37	16-25	31
2:00 PM	**3**	4	12	3	0	0	0	0	0	0	0	0	0	0	22	16-25	16
3:00 PM	1	10	22	3	0	0	0	0	0	0	0	0	0	0	36	16-25	31
4:00 PM	1	15	22	1	0	0	0	0	0	0	0	0	0	0	**39**	16-25	37
5:00 PM	3	**20**	15	1	0	0	0	0	0	0	0	0	0	0	39	16-25	35
6:00 PM	0	16	12	2	0	0	0	0	0	0	0	0	0	0	30	16-25	27
7:00 PM	0	1	8	1	0	0	0	0	0	0	0	0	0	0	10	16-25	9
8:00 PM	0	1	4	0	0	0	0	0	0	0	0	0	0	0	5	16-25	5
9:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	16-25	2
10:00 PM	1	2	4	0	0	0	0	0	0	0	0	0	0	0	7	16-25	6
11:00 PM	0	1	3	0	0	0	0	0	0	0	0	0	0	0	4	16-25	4
Day Total	24	133	263	47	1	0	0	0	0	0	0	0	0	0	468	16-25	396
Percent	5.1%	28.4%	56.2%	10.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
468

AM Peak Volume	7:00 AM 4	7:00 AM 9	7:00 AM 28	8:00 AM 7	8:00 AM 1		7:00 AM 47	
PM Peak Volume	2:00 PM 3	5:00 PM 20	12:00 PM 25	1:00 PM 6			4:00 PM 39	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: C St btwn 51st St and Elvas Ave
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812537
DIRECTION: EB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	24	133	263	47	1	0	0	0	0	0	0	0	0	0	468	16-25	396
Percent	5.1%	28.4%	56.2%	10.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	5.1%	33.5%	89.7%	99.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
468

85th Percentile 24 MPH

Mean Speed(Average): 20 MPH

Median 21 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: F St btwn 50th St and 52nd St
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812536
DIRECTION: WB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		5				5			5	
1:00 AM		2				2			2	
2:00 AM		0				0			0	
3:00 AM		1				1			1	
4:00 AM		2				2			2	
5:00 AM		9				9			9	
6:00 AM		22				22			22	
7:00 AM		31				31			31	
8:00 AM		**53**				**53**			**53**	
9:00 AM		37				37			37	
10:00 AM		40				40			40	
11:00 AM		34				34			34	
12:00 PM		**63**				**63**			**63**	
1:00 PM		58				58			58	
2:00 PM		51				51			51	
3:00 PM		59				59			59	
4:00 PM		59				59			59	
5:00 PM		53				53			53	
6:00 PM		36				36			36	
7:00 PM		20				20			20	
8:00 PM		20				20			20	
9:00 PM		16				16			16	
10:00 PM		11				11			11	
11:00 PM		2				2			2	
Day Total		684				684			684	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		8:00 AM 53				8:00 AM 53			8:00 AM 53	
PM Peak Volume		12:00 PM 63				12:00 PM 63			12:00 PM 63	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: F St btwn 50th St and 52nd St
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812536
DIRECTION: WB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	1	1	3	0	0	0	0	0	0	0	0	0	0	0	5	16-25	4
1:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	21-30	2
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
3:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	11-20	1
4:00 AM	0	0	0	1	**1**	0	0	0	0	0	0	0	0	0	2	26-35	2
5:00 AM	2	3	4	0	0	0	0	0	0	0	0	0	0	0	9	16-25	7
6:00 AM	1	6	9	**5**	1	0	0	0	0	0	0	0	0	0	22	16-25	15
7:00 AM	1	9	18	3	0	0	0	0	0	0	0	0	0	0	31	16-25	27
8:00 AM	7	18	**23**	5	0	0	0	0	0	0	0	0	0	0	**53**	16-25	41
9:00 AM	5	15	14	3	0	0	0	0	0	0	0	0	0	0	37	16-25	28
10:00 AM	**8**	17	11	4	0	0	0	0	0	0	0	0	0	0	40	16-25	28
11:00 AM	5	**19**	10	0	0	0	0	0	0	0	0	0	0	0	34	16-25	29
12:00 PM	14	21	**24**	3	**1**	0	0	0	0	0	0	0	0	0	**63**	16-25	44
1:00 PM	**16**	12	22	**8**	0	0	0	0	0	0	0	0	0	0	58	16-25	34
2:00 PM	11	17	22	1	0	0	0	0	0	0	0	0	0	0	51	16-25	39
3:00 PM	11	24	19	5	0	0	0	0	0	0	0	0	0	0	59	16-25	42
4:00 PM	11	21	20	7	0	0	0	0	0	0	0	0	0	0	59	16-25	41
5:00 PM	6	**27**	17	3	0	0	0	0	0	0	0	0	0	0	53	16-25	44
6:00 PM	3	13	15	4	1	0	0	0	0	0	0	0	0	0	36	16-25	28
7:00 PM	1	3	14	2	0	0	0	0	0	0	0	0	0	0	20	16-25	17
8:00 PM	1	7	7	5	0	0	0	0	0	0	0	0	0	0	20	18-27	13
9:00 PM	2	2	10	2	0	0	0	0	0	0	0	0	0	0	16	16-25	12
10:00 PM	4	2	1	4	0	0	0	0	0	0	0	0	0	0	11	21-30	5
11:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	16-25	2
Day Total	110	239	265	66	4	0	0	0	0	0	0	0	0	0	684	16-25	504
Percent	16.1%	34.9%	38.7%	9.6%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
684

AM Peak Volume	10:00 AM 8	11:00 AM 19	8:00 AM 23	6:00 AM 5	4:00 AM 1	8:00 AM 53		
PM Peak Volume	1:00 PM 16	5:00 PM 27	12:00 PM 24	1:00 PM 8	12:00 PM 1	12:00 PM 63		

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: F St btwn 50th St and 52nd St
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812536
DIRECTION: WB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	110	239	265	66	4	0	0	0	0	0	0	0	0	0	684	16-25	504
Percent	16.1%	34.9%	38.7%	9.6%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	16.1%	51.0%	89.8%	99.4%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
684

85th Percentile 24 MPH

Mean Speed(Average): 18 MPH

Median 19 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: F St btwn 50th St and 52nd St
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812536
DIRECTION: EB/WB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		7				7			7	
1:00 AM		3				3			3	
2:00 AM		0				0			0	
3:00 AM		1				1			1	
4:00 AM		5				5			5	
5:00 AM		14				14			14	
6:00 AM		55				55			55	
7:00 AM		115				115			115	
8:00 AM		**127**				**127**			**127**	
9:00 AM		91				91			91	
10:00 AM		78				78			78	
11:00 AM		88				88			88	
12:00 PM		**115**				**115**			**115**	
1:00 PM		112				112			112	
2:00 PM		97				97			97	
3:00 PM		110				110			110	
4:00 PM		110				110			110	
5:00 PM		102				102			102	
6:00 PM		62				62			62	
7:00 PM		34				34			34	
8:00 PM		30				30			30	
9:00 PM		26				26			26	
10:00 PM		19				19			19	
11:00 PM		9				9			9	
Day Total		1410				1410			1410	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		8:00 AM 127				8:00 AM 127			8:00 AM 127	
PM Peak Volume		12:00 PM 115				12:00 PM 115			12:00 PM 115	

Comments:

Report generated on 11/20/2012 1:03 PM

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QC JOB #: 10812536
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Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	1	2	4	0	0	0	0	0	0	0	0	0	0	0	7	16-25	6
1:00 AM	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3	21-30	2
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
3:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	11-20	1
4:00 AM	0	1	1	2	**1**	0	0	0	0	0	0	0	0	0	5	26-35	3
5:00 AM	2	6	5	1	0	0	0	0	0	0	0	0	0	0	14	16-25	11
6:00 AM	5	16	26	7	1	0	0	0	0	0	0	0	0	0	55	16-25	42
7:00 AM	11	36	57	11	0	0	0	0	0	0	0	0	0	0	115	16-25	93
8:00 AM	**17**	38	**59**	**12**	1	0	0	0	0	0	0	0	0	0	**127**	16-25	97
9:00 AM	12	31	43	5	0	0	0	0	0	0	0	0	0	0	91	16-25	73
10:00 AM	13	31	27	7	0	0	0	0	0	0	0	0	0	0	78	16-25	58
11:00 AM	12	**40**	31	5	0	0	0	0	0	0	0	0	0	0	88	16-25	71
12:00 PM	22	39	**44**	9	1	0	0	0	0	0	0	0	0	0	**115**	16-25	83
1:00 PM	**27**	34	37	**14**	0	0	0	0	0	0	0	0	0	0	112	16-25	71
2:00 PM	17	32	43	5	0	0	0	0	0	0	0	0	0	0	97	16-25	74
3:00 PM	21	39	44	6	0	0	0	0	0	0	0	0	0	0	110	16-25	83
4:00 PM	16	42	41	10	1	0	0	0	0	0	0	0	0	0	110	16-25	82
5:00 PM	9	**44**	42	7	0	0	0	0	0	0	0	0	0	0	102	16-25	86
6:00 PM	3	20	32	5	**2**	0	0	0	0	0	0	0	0	0	62	16-25	52
7:00 PM	1	7	22	4	0	0	0	0	0	0	0	0	0	0	34	17-26	28
8:00 PM	1	10	12	6	1	0	0	0	0	0	0	0	0	0	30	17-26	21
9:00 PM	6	5	12	3	0	0	0	0	0	0	0	0	0	0	26	16-25	17
10:00 PM	8	4	2	5	0	0	0	0	0	0	0	0	0	0	19	21-30	7
11:00 PM	1	4	4	0	0	0	0	0	0	0	0	0	0	0	9	16-25	8
Day Total	205	483	589	125	8	0	0	0	0	0	0	0	0	0	1410	16-25	1072
Percent	14.5%	34.3%	41.8%	8.9%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
ADT 1410																	
AM Peak Volume	8:00 AM 17	11:00 AM 40	8:00 AM 59	8:00 AM 12	4:00 AM 1										8:00 AM 127		
PM Peak Volume	1:00 PM 27	5:00 PM 44	12:00 PM 44	1:00 PM 14	6:00 PM 2										12:00 PM 115		

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: F St btwn 50th St and 52nd St
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812536
DIRECTION: EB/WB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	205	483	589	125	8	0	0	0	0	0	0	0	0	0	1410	16-25	1072
Percent	14.5%	34.3%	41.8%	8.9%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	14.5%	48.8%	90.6%	99.4%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
1410

85th Percentile 24 MPH

Mean Speed(Average): 19 MPH

Median 20 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: F St btwn 50th St and 52nd St
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812536
DIRECTION: EB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		2				2			2	
1:00 AM		1				1			1	
2:00 AM		0				0			0	
3:00 AM		0				0			0	
4:00 AM		3				3			3	
5:00 AM		5				5			5	
6:00 AM		33				33			33	
7:00 AM		**84**				**84**			**84**	
8:00 AM		74				74			74	
9:00 AM		54				54			54	
10:00 AM		38				38			38	
11:00 AM		54				54			54	
12:00 PM		52				52			52	
1:00 PM		**54**				**54**			**54**	
2:00 PM		46				46			46	
3:00 PM		51				51			51	
4:00 PM		51				51			51	
5:00 PM		49				49			49	
6:00 PM		26				26			26	
7:00 PM		14				14			14	
8:00 PM		10				10			10	
9:00 PM		10				10			10	
10:00 PM		8				8			8	
11:00 PM		7				7			7	
Day Total		726				726			726	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		7:00 AM 84				7:00 AM 84			7:00 AM 84	
PM Peak Volume		1:00 PM 54				1:00 PM 54			1:00 PM 54	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: F St btwn 50th St and 52nd St
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812536
DIRECTION: EB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	16-25	2
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	11-20	1
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
4:00 AM	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3	21-30	2
5:00 AM	0	3	1	1	0	0	0	0	0	0	0	0	0	0	5	16-25	4
6:00 AM	4	10	17	2	0	0	0	0	0	0	0	0	0	0	33	16-25	26
7:00 AM	**10**	**27**	**39**	**8**	0	0	0	0	0	0	0	0	0	0	**84**	16-25	66
8:00 AM	10	20	36	7	**1**	0	0	0	0	0	0	0	0	0	74	16-25	56
9:00 AM	7	16	29	2	0	0	0	0	0	0	0	0	0	0	54	16-25	44
10:00 AM	5	14	16	3	0	0	0	0	0	0	0	0	0	0	38	16-25	30
11:00 AM	7	21	21	5	0	0	0	0	0	0	0	0	0	0	54	16-25	42
12:00 PM	8	18	20	**6**	0	0	0	0	0	0	0	0	0	0	52	16-25	38
1:00 PM	**11**	**22**	15	6	0	0	0	0	0	0	0	0	0	0	**54**	16-25	37
2:00 PM	6	15	21	4	0	0	0	0	0	0	0	0	0	0	46	16-25	36
3:00 PM	10	15	**25**	1	0	0	0	0	0	0	0	0	0	0	51	16-25	40
4:00 PM	5	21	21	3	**1**	0	0	0	0	0	0	0	0	0	51	16-25	42
5:00 PM	3	17	25	4	0	0	0	0	0	0	0	0	0	0	49	16-25	42
6:00 PM	0	7	17	1	1	0	0	0	0	0	0	0	0	0	26	16-25	23
7:00 PM	0	4	8	2	0	0	0	0	0	0	0	0	0	0	14	16-25	12
8:00 PM	0	3	5	1	1	0	0	0	0	0	0	0	0	0	10	16-25	8
9:00 PM	4	3	2	1	0	0	0	0	0	0	0	0	0	0	10	16-25	5
10:00 PM	4	2	1	1	0	0	0	0	0	0	0	0	0	0	8	16-25	3
11:00 PM	1	3	3	0	0	0	0	0	0	0	0	0	0	0	7	17-26	5
Day Total	95	244	324	59	4	0	0	0	0	0	0	0	0	0	726	16-25	567
Percent	13.1%	33.6%	44.6%	8.1%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
726

AM Peak Volume	7:00 AM 10	7:00 AM 27	7:00 AM 39	7:00 AM 8	8:00 AM 1		7:00 AM 84	
PM Peak Volume	1:00 PM 11	1:00 PM 22	3:00 PM 25	12:00 PM 6	4:00 PM 1		1:00 PM 54	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: F St btwn 50th St and 52nd St
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812536
DIRECTION: EB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	95	244	324	59	4	0	0	0	0	0	0	0	0	0	726	16-25	567
Percent	13.1%	33.6%	44.6%	8.1%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	13.1%	46.7%	91.3%	99.4%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
726

85th Percentile 24 MPH

Mean Speed(Average): 19 MPH

Median 20 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: C St btwn 51st St and Coloma Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812533
DIRECTION: WB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		2				2			2	
1:00 AM		0				0			0	
2:00 AM		0				0			0	
3:00 AM		0				0			0	
4:00 AM		2				2			2	
5:00 AM		0				0			0	
6:00 AM		7				7			7	
7:00 AM		4				4			4	
8:00 AM		9				9			9	
9:00 AM		**10**				**10**			**10**	
10:00 AM		4				4			4	
11:00 AM		8				8			8	
12:00 PM		**17**				**17**			**17**	
1:00 PM		11				11			11	
2:00 PM		8				8			8	
3:00 PM		15				15			15	
4:00 PM		15				15			15	
5:00 PM		15				15			15	
6:00 PM		15				15			15	
7:00 PM		6				6			6	
8:00 PM		3				3			3	
9:00 PM		1				1			1	
10:00 PM		3				3			3	
11:00 PM		1				1			1	
Day Total		156				156			156	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		9:00 AM 10				9:00 AM 10			9:00 AM 10	
PM Peak Volume		12:00 PM 17				12:00 PM 17			12:00 PM 17	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: C St btwn 51st St and Coloma Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812533
DIRECTION: WB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	16-25	2
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
4:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	21-30	1
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
6:00 AM	0	1	3	2	**1**	0	0	0	0	0	0	0	0	0	7	21-30	5
7:00 AM	2	2	0	0	0	0	0	0	0	0	0	0	0	0	4	15-24	2
8:00 AM	1	2	**5**	1	0	0	0	0	0	0	0	0	0	0	9	16-25	7
9:00 AM	1	**3**	3	2	1	0	0	0	0	0	0	0	0	0	**10**	21-30	5
10:00 AM	0	1	0	**3**	0	0	0	0	0	0	0	0	0	0	4	21-30	3
11:00 AM	**3**	1	2	2	0	0	0	0	0	0	0	0	0	0	8	21-30	4
12:00 PM	2	1	7	**5**	**2**	0	0	0	0	0	0	0	0	0	**17**	21-30	12
1:00 PM	1	2	4	4	0	0	0	0	0	0	0	0	0	0	11	21-30	8
2:00 PM	0	1	3	4	0	0	0	0	0	0	0	0	0	0	8	21-30	7
3:00 PM	1	2	6	5	1	0	0	0	0	0	0	0	0	0	15	21-30	11
4:00 PM	**5**	**4**	6	0	0	0	0	0	0	0	0	0	0	0	15	17-26	9
5:00 PM	1	3	**9**	1	1	0	0	0	0	0	0	0	0	0	15	16-25	12
6:00 PM	4	4	4	3	0	0	0	0	0	0	0	0	0	0	15	16-25	8
7:00 PM	2	2	1	1	0	0	0	0	0	0	0	0	0	0	6	16-25	3
8:00 PM	0	0	2	0	1	0	0	0	0	0	0	0	0	0	3	16-25	2
9:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	11-20	1
10:00 PM	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3	21-30	3
11:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16-25	1
Day Total	24	30	59	36	7	0	0	0	0	0	0	0	0	0	156	21-30	94
Percent	15.4%	19.2%	37.8%	23.1%	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
156

AM Peak Volume	11:00 AM 3	9:00 AM 3	8:00 AM 5	10:00 AM 3	6:00 AM 1		9:00 AM 10	
PM Peak Volume	4:00 PM 5	4:00 PM 4	5:00 PM 9	12:00 PM 5	12:00 PM 2		12:00 PM 17	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: C St btwn 51st St and Coloma Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812533
DIRECTION: WB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	24	30	59	36	7	0	0	0	0	0	0	0	0	0	156	21-30	94
Percent	15.4%	19.2%	37.8%	23.1%	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	15.4%	34.6%	72.4%	95.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
156

85th Percentile 27 MPH

Mean Speed(Average): 20 MPH

Median 22 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: C St btwn 51st St and Coloma Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812533
DIRECTION: EB/WB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		2				2			2	
1:00 AM		0				0			0	
2:00 AM		0				0			0	
3:00 AM		0				0			0	
4:00 AM		3				3			3	
5:00 AM		0				0			0	
6:00 AM		12				12			12	
7:00 AM		16				16			16	
8:00 AM		**22**				**22**			**22**	
9:00 AM		19				19			19	
10:00 AM		9				9			9	
11:00 AM		17				17			17	
12:00 PM		26				26			26	
1:00 PM		27				27			27	
2:00 PM		14				14			14	
3:00 PM		28				28			28	
4:00 PM		26				26			26	
5:00 PM		**30**				**30**			**30**	
6:00 PM		27				27			27	
7:00 PM		9				9			9	
8:00 PM		7				7			7	
9:00 PM		1				1			1	
10:00 PM		4				4			4	
11:00 PM		2				2			2	
Day Total		301				301			301	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		8:00 AM 22				8:00 AM 22			8:00 AM 22	
PM Peak Volume		5:00 PM 30				5:00 PM 30			5:00 PM 30	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: C St btwn 51st St and Coloma Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812533
DIRECTION: EB/WB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	16-25	2
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
4:00 AM	1	0	1	1	0	0	0	0	0	0	0	0	0	0	3	21-30	2
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
6:00 AM	0	2	5	4	1	0	0	0	0	0	0	0	0	0	12	21-30	9
7:00 AM	6	4	5	1	0	0	0	0	0	0	0	0	0	0	16	16-25	9
8:00 AM	4	**5**	**8**	3	**2**	0	0	0	0	0	0	0	0	0	**22**	16-25	13
9:00 AM	1	5	8	3	2	0	0	0	0	0	0	0	0	0	19	16-25	13
10:00 AM	0	1	3	**5**	0	0	0	0	0	0	0	0	0	0	9	21-30	8
11:00 AM	**7**	1	5	4	0	0	0	0	0	0	0	0	0	0	17	21-30	9
12:00 PM	3	3	11	**7**	**2**	0	0	0	0	0	0	0	0	0	26	21-30	17
1:00 PM	2	3	**16**	5	1	0	0	0	0	0	0	0	0	0	27	21-30	21
2:00 PM	1	4	5	4	0	0	0	0	0	0	0	0	0	0	14	21-30	9
3:00 PM	5	4	11	7	1	0	0	0	0	0	0	0	0	0	28	21-30	17
4:00 PM	**10**	**7**	7	2	0	0	0	0	0	0	0	0	0	0	26	16-25	13
5:00 PM	4	6	16	3	1	0	0	0	0	0	0	0	0	0	**30**	16-25	22
6:00 PM	8	5	10	4	0	0	0	0	0	0	0	0	0	0	27	16-25	15
7:00 PM	2	3	3	1	0	0	0	0	0	0	0	0	0	0	9	18-27	5
8:00 PM	0	0	5	1	1	0	0	0	0	0	0	0	0	0	7	22-31	5
9:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	11-20	1
10:00 PM	0	0	2	2	0	0	0	0	0	0	0	0	0	0	4	21-30	4
11:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	16-25	2
Day Total	54	55	124	57	11	0	0	0	0	0	0	0	0	0	301	21-30	180
Percent	17.9%	18.3%	41.2%	18.9%	3.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
301

AM Peak Volume	11:00 AM 7	8:00 AM 5	8:00 AM 8	10:00 AM 5	8:00 AM 2		8:00 AM 22	
PM Peak Volume	4:00 PM 10	4:00 PM 7	1:00 PM 16	12:00 PM 7	12:00 PM 2		5:00 PM 30	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: C St btwn 51st St and Coloma Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812533
DIRECTION: EB/WB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	54	55	124	57	11	0	0	0	0	0	0	0	0	0	301	21-30	180
Percent	17.9%	18.3%	41.2%	18.9%	3.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	17.9%	36.2%	77.4%	96.3%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
301

85th Percentile 27 MPH

Mean Speed(Average): 20 MPH

Median 21 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: C St btwn 51st St and Coloma Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812533
DIRECTION: EB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		0				0			0	
1:00 AM		0				0			0	
2:00 AM		0				0			0	
3:00 AM		0				0			0	
4:00 AM		1				1			1	
5:00 AM		0				0			0	
6:00 AM		5				5			5	
7:00 AM		12				12			12	
8:00 AM		**13**				**13**			**13**	
9:00 AM		9				9			9	
10:00 AM		5				5			5	
11:00 AM		9				9			9	
12:00 PM		9				9			9	
1:00 PM		**16**				**16**			**16**	
2:00 PM		6				6			6	
3:00 PM		13				13			13	
4:00 PM		11				11			11	
5:00 PM		15				15			15	
6:00 PM		12				12			12	
7:00 PM		3				3			3	
8:00 PM		4				4			4	
9:00 PM		0				0			0	
10:00 PM		1				1			1	
11:00 PM		1				1			1	
Day Total		145				145			145	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		8:00 AM 13				8:00 AM 13			8:00 AM 13	
PM Peak Volume		1:00 PM 16				1:00 PM 16			1:00 PM 16	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: C St btwn 51st St and Coloma Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812533
DIRECTION: EB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
4:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16-25	1
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
6:00 AM	0	1	2	**2**	0	0	0	0	0	0	0	0	0	0	5	21-30	4
7:00 AM	**4**	2	**5**	1	0	0	0	0	0	0	0	0	0	0	12	16-25	7
8:00 AM	3	**3**	3	2	**2**	0	0	0	0	0	0	0	0	0	**13**	21-30	5
9:00 AM	0	2	5	1	1	0	0	0	0	0	0	0	0	0	9	16-25	7
10:00 AM	0	0	3	2	0	0	0	0	0	0	0	0	0	0	5	21-30	5
11:00 AM	4	0	3	2	0	0	0	0	0	0	0	0	0	0	9	21-30	5
12:00 PM	1	2	4	**2**	0	0	0	0	0	0	0	0	0	0	9	21-30	6
1:00 PM	1	1	**12**	1	**1**	0	0	0	0	0	0	0	0	0	**16**	16-25	13
2:00 PM	1	**3**	2	0	0	0	0	0	0	0	0	0	0	0	6	16-25	5
3:00 PM	4	2	5	2	0	0	0	0	0	0	0	0	0	0	13	21-30	7
4:00 PM	**5**	3	1	2	0	0	0	0	0	0	0	0	0	0	11	15-24	4
5:00 PM	3	3	7	2	0	0	0	0	0	0	0	0	0	0	15	16-25	10
6:00 PM	4	1	6	1	0	0	0	0	0	0	0	0	0	0	12	16-25	7
7:00 PM	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3	16-25	3
8:00 PM	0	0	3	1	0	0	0	0	0	0	0	0	0	0	4	21-30	4
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
10:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16-25	1
11:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	11-20	1
Day Total	30	25	65	21	4	0	0	0	0	0	0	0	0	0	145	16-25	90
Percent	20.7%	17.2%	44.8%	14.5%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
145

AM Peak Volume	7:00 AM 4	8:00 AM 3	7:00 AM 5	6:00 AM 2	8:00 AM 2		8:00 AM 13	
PM Peak Volume	4:00 PM 5	2:00 PM 3	1:00 PM 12	12:00 PM 2	1:00 PM 1		1:00 PM 16	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: C St btwn 51st St and Coloma Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812533
DIRECTION: EB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	30	25	65	21	4	0	0	0	0	0	0	0	0	0	145	16-25	90
Percent	20.7%	17.2%	44.8%	14.5%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	20.7%	37.9%	82.8%	97.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
145

85th Percentile 25 MPH

Mean Speed(Average): 19 MPH

Median 21 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: D St btwn 51st St and Coloma Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812532
DIRECTION: WB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		2				2			2	
1:00 AM		0				0			0	
2:00 AM		0				0			0	
3:00 AM		0				0			0	
4:00 AM		0				0			0	
5:00 AM		2				2			2	
6:00 AM		4				4			4	
7:00 AM		**18**				**18**			**18**	
8:00 AM		11				11			11	
9:00 AM		15				15			15	
10:00 AM		10				10			10	
11:00 AM		17				17			17	
12:00 PM		14				14			14	
1:00 PM		19				19			19	
2:00 PM		9				9			9	
3:00 PM		18				18			18	
4:00 PM		18				18			18	
5:00 PM		**23**				**23**			**23**	
6:00 PM		12				12			12	
7:00 PM		8				8			8	
8:00 PM		4				4			4	
9:00 PM		2				2			2	
10:00 PM		3				3			3	
11:00 PM		1				1			1	
Day Total		210				210			210	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		7:00 AM 18				7:00 AM 18			7:00 AM 18	
PM Peak Volume		5:00 PM 23				5:00 PM 23			5:00 PM 23	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: D St btwn 51st St and Coloma Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812532
DIRECTION: WB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	16-25	2
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
5:00 AM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	15-24	1
6:00 AM	1	0	2	1	0	0	0	0	0	0	0	0	0	0	4	21-30	3
7:00 AM	1	2	3	**8**	**4**	0	0	0	0	0	0	0	0	0	**18**	26-35	12
8:00 AM	**5**	2	1	1	1	**1**	0	0	0	0	0	0	0	0	11	16-25	3
9:00 AM	0	**4**	**9**	2	0	0	0	0	0	0	0	0	0	0	15	16-25	13
10:00 AM	1	1	5	3	0	0	0	0	0	0	0	0	0	0	10	21-30	7
11:00 AM	0	2	5	7	3	0	0	0	0	0	0	0	0	0	17	23-32	11
12:00 PM	0	3	5	5	1	0	0	0	0	0	0	0	0	0	14	21-30	10
1:00 PM	1	5	8	4	1	0	0	0	0	0	0	0	0	0	19	16-25	13
2:00 PM	1	2	1	5	0	0	0	0	0	0	0	0	0	0	9	21-30	6
3:00 PM	0	**6**	**9**	2	1	0	0	0	0	0	0	0	0	0	18	16-25	15
4:00 PM	**2**	3	7	5	1	0	0	0	0	0	0	0	0	0	18	21-30	12
5:00 PM	2	4	7	**9**	1	0	0	0	0	0	0	0	0	0	**23**	21-30	16
6:00 PM	1	4	3	2	**2**	0	0	0	0	0	0	0	0	0	12	18-27	6
7:00 PM	0	1	5	2	0	0	0	0	0	0	0	0	0	0	8	21-30	7
8:00 PM	0	0	1	3	0	0	0	0	0	0	0	0	0	0	4	21-30	4
9:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	16-25	2
10:00 PM	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3	21-30	3
11:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	21-30	1
Day Total	16	41	76	61	15	1	0	0	0	0	0	0	0	0	210	21-30	136
Percent	7.6%	19.5%	36.2%	29.0%	7.1%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
210

AM Peak Volume	8:00 AM 5	9:00 AM 4	9:00 AM 9	7:00 AM 8	7:00 AM 4	8:00 AM 1		7:00 AM 18	
PM Peak Volume	4:00 PM 2	3:00 PM 6	3:00 PM 9	5:00 PM 9	6:00 PM 2			5:00 PM 23	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: D St btwn 51st St and Coloma Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812532
DIRECTION: WB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	16	41	76	61	15	1	0	0	0	0	0	0	0	0	210	21-30	136
Percent	7.6%	19.5%	36.2%	29.0%	7.1%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	7.6%	27.1%	63.3%	92.4%	99.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
210

85th Percentile 28 MPH

Mean Speed(Average): 22 MPH

Median 23 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: D St btwn 51st St and Coloma Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812532
DIRECTION: EB/WB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		3				3			3	
1:00 AM		1				1			1	
2:00 AM		0				0			0	
3:00 AM		0				0			0	
4:00 AM		2				2			2	
5:00 AM		4				4			4	
6:00 AM		11				11			11	
7:00 AM		40				40			40	
8:00 AM		35				35			35	
9:00 AM		29				29			29	
10:00 AM		30				30			30	
11:00 AM		**47**				**47**			**47**	
12:00 PM		40				40			40	
1:00 PM		46				46			46	
2:00 PM		25				25			25	
3:00 PM		45				45			45	
4:00 PM		**51**				**51**			**51**	
5:00 PM		43				43			43	
6:00 PM		33				33			33	
7:00 PM		19				19			19	
8:00 PM		10				10			10	
9:00 PM		4				4			4	
10:00 PM		6				6			6	
11:00 PM		4				4			4	
Day Total		528				528			528	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		11:00 AM 47				11:00 AM 47			11:00 AM 47	
PM Peak Volume		4:00 PM 51				4:00 PM 51			4:00 PM 51	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: D St btwn 51st St and Coloma Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812532
DIRECTION: EB/WB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3	21-30	2
1:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16-25	1
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
4:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	16-25	1
5:00 AM	1	2	0	1	0	0	0	0	0	0	0	0	0	0	4	15-24	2
6:00 AM	1	0	4	5	1	0	0	0	0	0	0	0	0	0	11	21-30	9
7:00 AM	2	3	8	**19**	8	0	0	0	0	0	0	0	0	0	40	26-35	27
8:00 AM	**5**	4	11	10	4	**1**	0	0	0	0	0	0	0	0	35	21-30	21
9:00 AM	0	**10**	11	5	3	0	0	0	0	0	0	0	0	0	29	16-25	21
10:00 AM	3	1	14	11	1	0	0	0	0	0	0	0	0	0	30	21-30	25
11:00 AM	0	2	**16**	18	**11**	0	0	0	0	0	0	0	0	0	**47**	21-30	34
12:00 PM	0	8	13	12	**7**	0	0	0	0	0	0	0	0	0	40	21-30	24
1:00 PM	3	8	17	**15**	3	0	0	0	0	0	0	0	0	0	46	21-30	32
2:00 PM	1	2	9	12	1	0	0	0	0	0	0	0	0	0	25	21-30	20
3:00 PM	2	**11**	**23**	6	3	0	0	0	0	0	0	0	0	0	45	16-25	34
4:00 PM	**5**	11	18	13	4	0	0	0	0	0	0	0	0	0	**51**	21-30	31
5:00 PM	3	7	17	15	1	0	0	0	0	0	0	0	0	0	43	21-30	32
6:00 PM	2	9	14	5	3	0	0	0	0	0	0	0	0	0	33	17-26	22
7:00 PM	2	3	9	4	0	0	**1**	0	0	0	0	0	0	0	19	21-30	13
8:00 PM	0	1	3	6	0	0	0	0	0	0	0	0	0	0	10	22-31	8
9:00 PM	0	1	3	0	0	0	0	0	0	0	0	0	0	0	4	16-25	4
10:00 PM	0	0	3	3	0	0	0	0	0	0	0	0	0	0	6	22-31	5
11:00 PM	0	1	1	1	1	0	0	0	0	0	0	0	0	0	4	26-35	2
Day Total	31	85	197	162	51	1	1	0	0	0	0	0	0	0	528	21-30	358
Percent	5.9%	16.1%	37.3%	30.7%	9.7%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
528

AM Peak Volume	8:00 AM 5	9:00 AM 10	11:00 AM 16	7:00 AM 19	11:00 AM 11	8:00 AM 1									11:00 AM 47		
PM Peak Volume	4:00 PM 5	3:00 PM 11	3:00 PM 23	1:00 PM 15	12:00 PM 7		7:00 PM 1								4:00 PM 51		

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: D St btwn 51st St and Coloma Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812532
DIRECTION: EB/WB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	31	85	197	162	51	1	1	0	0	0	0	0	0	0	528	21-30	358
Percent	5.9%	16.1%	37.3%	30.7%	9.7%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	5.9%	22.0%	59.3%	90.0%	99.6%	99.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
528

85th Percentile 29 MPH

Mean Speed(Average): 23 MPH

Median 23 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: D St btwn 51st St and Coloma Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812532
DIRECTION: EB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		1				1			1	
1:00 AM		1				1			1	
2:00 AM		0				0			0	
3:00 AM		0				0			0	
4:00 AM		2				2			2	
5:00 AM		2				2			2	
6:00 AM		7				7			7	
7:00 AM		22				22			22	
8:00 AM		24				24			24	
9:00 AM		14				14			14	
10:00 AM		20				20			20	
11:00 AM		**30**				**30**			**30**	
12:00 PM		26				26			26	
1:00 PM		27				27			27	
2:00 PM		16				16			16	
3:00 PM		27				27			27	
4:00 PM		**33**				**33**			**33**	
5:00 PM		20				20			20	
6:00 PM		21				21			21	
7:00 PM		11				11			11	
8:00 PM		6				6			6	
9:00 PM		2				2			2	
10:00 PM		3				3			3	
11:00 PM		3				3			3	
Day Total		318				318			318	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		11:00 AM 30				11:00 AM 30			11:00 AM 30	
PM Peak Volume		4:00 PM 33				4:00 PM 33			4:00 PM 33	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: D St btwn 51st St and Coloma Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812532
DIRECTION: EB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	21-30	1
1:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16-25	1
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
4:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	16-25	1
5:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	11-20	1
6:00 AM	0	0	2	4	1	0	0	0	0	0	0	0	0	0	7	21-30	6
7:00 AM	1	1	5	**11**	4	0	0	0	0	0	0	0	0	0	22	26-35	15
8:00 AM	0	2	10	9	3	0	0	0	0	0	0	0	0	0	24	21-30	19
9:00 AM	0	**6**	2	3	3	0	0	0	0	0	0	0	0	0	14	16-25	8
10:00 AM	**2**	0	9	8	1	0	0	0	0	0	0	0	0	0	20	21-30	17
11:00 AM	0	0	**11**	11	**8**	0	0	0	0	0	0	0	0	0	**30**	21-30	22
12:00 PM	0	5	8	7	**6**	0	0	0	0	0	0	0	0	0	26	23-32	14
1:00 PM	2	3	9	**11**	2	0	0	0	0	0	0	0	0	0	27	21-30	20
2:00 PM	0	0	8	7	1	0	0	0	0	0	0	0	0	0	16	21-30	14
3:00 PM	2	5	**14**	4	2	0	0	0	0	0	0	0	0	0	27	16-25	19
4:00 PM	**3**	**8**	11	8	3	0	0	0	0	0	0	0	0	0	**33**	21-30	19
5:00 PM	1	3	10	6	0	0	0	0	0	0	0	0	0	0	20	21-30	15
6:00 PM	1	5	11	3	1	0	0	0	0	0	0	0	0	0	21	18-27	15
7:00 PM	2	2	4	2	0	0	**1**	0	0	0	0	0	0	0	11	21-30	6
8:00 PM	0	1	2	3	0	0	0	0	0	0	0	0	0	0	6	23-32	4
9:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	16-25	2
10:00 PM	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3	21-30	3
11:00 PM	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3	16-25	2
Day Total	15	44	121	101	36	0	1	0	0	0	0	0	0	0	318	21-30	221
Percent	4.7%	13.8%	38.1%	31.8%	11.3%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
318

AM Peak Volume	10:00 AM 2	9:00 AM 6	11:00 AM 11	7:00 AM 11	11:00 AM 8										11:00 AM 30		
PM Peak Volume	4:00 PM 3	4:00 PM 8	3:00 PM 14	1:00 PM 11	12:00 PM 6		7:00 PM 1								4:00 PM 33		

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: D St btwn 51st St and Coloma Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812532
DIRECTION: EB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	15	44	121	101	36	0	1	0	0	0	0	0	0	0	318	21-30	221
Percent	4.7%	13.8%	38.1%	31.8%	11.3%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	4.7%	18.6%	56.6%	88.4%	99.7%	99.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
318

85th Percentile 29 MPH

Mean Speed(Average): 23 MPH

Median 24 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: Coloma Way btwn D St and B St
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812531
DIRECTION: SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		0				0			0	
1:00 AM		0				0			0	
2:00 AM		0				0			0	
3:00 AM		2				2			2	
4:00 AM		0				0			0	
5:00 AM		4				4			4	
6:00 AM		8				8			8	
7:00 AM		**25**				**25**			**25**	
8:00 AM		15				15			15	
9:00 AM		16				16			16	
10:00 AM		8				8			8	
11:00 AM		11				11			11	
12:00 PM		17				17			17	
1:00 PM		15				15			15	
2:00 PM		14				14			14	
3:00 PM		12				12			12	
4:00 PM		20				20			20	
5:00 PM		**21**				**21**			**21**	
6:00 PM		16				16			16	
7:00 PM		8				8			8	
8:00 PM		7				7			7	
9:00 PM		3				3			3	
10:00 PM		3				3			3	
11:00 PM		5				5			5	
Day Total		230				230			230	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		7:00 AM 25				7:00 AM 25			7:00 AM 25	
PM Peak Volume		5:00 PM 21				5:00 PM 21			5:00 PM 21	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: Coloma Way btwn D St and B St
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812531
DIRECTION: SB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
3:00 AM	0	0	1	0	0	**1**	0	0	0	0	0	0	0	0	2	16-25	1
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
5:00 AM	0	0	2	2	0	0	0	0	0	0	0	0	0	0	4	21-30	4
6:00 AM	0	1	3	3	1	0	0	0	0	0	0	0	0	0	8	23-32	5
7:00 AM	0	1	**11**	**11**	2	0	0	0	0	0	0	0	0	0	**25**	21-30	22
8:00 AM	1	1	4	6	**3**	0	0	0	0	0	0	0	0	0	15	25-34	9
9:00 AM	**3**	**4**	1	6	2	0	0	0	0	0	0	0	0	0	16	26-35	8
10:00 AM	0	0	5	3	0	0	0	0	0	0	0	0	0	0	8	21-30	7
11:00 AM	0	0	7	3	1	0	0	0	0	0	0	0	0	0	11	21-30	10
12:00 PM	0	2	8	**6**	1	0	0	0	0	0	0	0	0	0	17	21-30	13
1:00 PM	0	4	5	4	**2**	0	0	0	0	0	0	0	0	0	15	21-30	9
2:00 PM	0	3	5	4	2	0	0	0	0	0	0	0	0	0	14	21-30	9
3:00 PM	0	2	7	3	0	0	0	0	0	0	0	0	0	0	12	21-30	10
4:00 PM	**1**	2	**13**	2	2	0	0	0	0	0	0	0	0	0	20	16-25	15
5:00 PM	0	**6**	11	4	0	0	0	0	0	0	0	0	0	0	**21**	16-25	17
6:00 PM	1	2	7	4	2	0	0	0	0	0	0	0	0	0	16	21-30	11
7:00 PM	0	1	2	4	1	0	0	0	0	0	0	0	0	0	8	21-30	6
8:00 PM	0	2	4	0	1	0	0	0	0	0	0	0	0	0	7	16-25	6
9:00 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3	21-30	3
10:00 PM	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3	26-35	3
11:00 PM	0	0	2	2	1	0	0	0	0	0	0	0	0	0	5	21-30	4
Day Total	6	31	98	72	22	1	0	0	0	0	0	0	0	0	230	21-30	169
Percent	2.6%	13.5%	42.6%	31.3%	9.6%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT 230

AM Peak Volume	9:00 AM 3	9:00 AM 4	7:00 AM 11	7:00 AM 11	8:00 AM 3	3:00 AM 1		7:00 AM 25	
PM Peak Volume	4:00 PM 1	5:00 PM 6	4:00 PM 13	12:00 PM 6	1:00 PM 2			5:00 PM 21	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: Coloma Way btwn D St and B St
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812531
DIRECTION: SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	6	31	98	72	22	1	0	0	0	0	0	0	0	0	230	21-30	169
Percent	2.6%	13.5%	42.6%	31.3%	9.6%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	2.6%	16.1%	58.7%	90.0%	99.6%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
230

85th Percentile 29 MPH

Mean Speed(Average): 24 MPH

Median 23 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: Coloma Way btwn D St and B St
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812531
DIRECTION: NB/SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		2				2			2	
1:00 AM		0				0			0	
2:00 AM		0				0			0	
3:00 AM		2				2			2	
4:00 AM		0				0			0	
5:00 AM		5				5			5	
6:00 AM		12				12			12	
7:00 AM		34				34			34	
8:00 AM		27				27			27	
9:00 AM		**37**				**37**			**37**	
10:00 AM		15				15			15	
11:00 AM		27				27			27	
12:00 PM		30				30			30	
1:00 PM		30				30			30	
2:00 PM		33				33			33	
3:00 PM		33				33			33	
4:00 PM		53				53			53	
5:00 PM		**60**				**60**			**60**	
6:00 PM		37				37			37	
7:00 PM		22				22			22	
8:00 PM		19				19			19	
9:00 PM		7				7			7	
10:00 PM		6				6			6	
11:00 PM		6				6			6	
Day Total		497				497			497	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		9:00 AM 37				9:00 AM 37			9:00 AM 37	
PM Peak Volume		5:00 PM 60				5:00 PM 60			5:00 PM 60	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: Coloma Way btwn D St and B St
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812531
DIRECTION: NB/SB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	11-20	2
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
3:00 AM	0	0	1	0	0	**1**	0	0	0	0	0	0	0	0	2	16-25	1
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
5:00 AM	0	1	2	2	0	0	0	0	0	0	0	0	0	0	5	21-30	4
6:00 AM	0	3	4	4	1	0	0	0	0	0	0	0	0	0	12	21-30	8
7:00 AM	1	1	12	**15**	**4**	1	0	0	0	0	0	0	0	0	34	21-30	27
8:00 AM	1	2	7	13	4	0	0	0	0	0	0	0	0	0	27	21-30	20
9:00 AM	**4**	**11**	7	13	2	0	0	0	0	0	0	0	0	0	**37**	21-30	20
10:00 AM	1	1	8	4	1	0	0	0	0	0	0	0	0	0	15	21-30	12
11:00 AM	2	4	**14**	4	3	0	0	0	0	0	0	0	0	0	27	16-25	18
12:00 PM	0	5	15	7	2	**1**	0	0	0	0	0	0	0	0	30	21-30	21
1:00 PM	1	5	9	11	**4**	0	0	0	0	0	0	0	0	0	30	21-30	20
2:00 PM	1	6	13	11	2	0	0	0	0	0	0	0	0	0	33	21-30	24
3:00 PM	0	5	18	9	1	0	0	0	0	0	0	0	0	0	33	21-30	26
4:00 PM	**6**	10	**27**	7	3	0	0	0	0	0	0	0	0	0	53	16-25	37
5:00 PM	3	**12**	22	**22**	1	0	0	0	0	0	0	0	0	0	**60**	21-30	44
6:00 PM	2	4	14	14	3	0	0	0	0	0	0	0	0	0	37	21-30	27
7:00 PM	2	1	7	11	1	0	0	0	0	0	0	0	0	0	22	21-30	18
8:00 PM	1	4	9	3	2	0	0	0	0	0	0	0	0	0	19	16-25	13
9:00 PM	0	1	2	4	0	0	0	0	0	0	0	0	0	0	7	21-30	6
10:00 PM	0	0	1	4	1	0	0	0	0	0	0	0	0	0	6	21-30	5
11:00 PM	0	0	3	2	1	0	0	0	0	0	0	0	0	0	6	21-30	5
Day Total	25	78	195	160	36	3	0	0	0	0	0	0	0	0	497	21-30	355
Percent	5.0%	15.7%	39.2%	32.2%	7.2%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT 497

AM Peak Volume	9:00 AM 4	9:00 AM 11	11:00 AM 14	7:00 AM 15	7:00 AM 4	3:00 AM 1		9:00 AM 37	
PM Peak Volume	4:00 PM 6	5:00 PM 12	4:00 PM 27	5:00 PM 22	1:00 PM 4	12:00 PM 1		5:00 PM 60	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: Coloma Way btwn D St and B St
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812531
DIRECTION: NB/SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	25	78	195	160	36	3	0	0	0	0	0	0	0	0	497	21-30	355
Percent	5.0%	15.7%	39.2%	32.2%	7.2%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	5.0%	20.7%	60.0%	92.2%	99.4%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
497

85th Percentile 28 MPH

Mean Speed(Average): 23 MPH

Median 23 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: Coloma Way btwn D St and B St
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812531
DIRECTION: NB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		2				2			2	
1:00 AM		0				0			0	
2:00 AM		0				0			0	
3:00 AM		0				0			0	
4:00 AM		0				0			0	
5:00 AM		1				1			1	
6:00 AM		4				4			4	
7:00 AM		9				9			9	
8:00 AM		12				12			12	
9:00 AM		**21**				**21**			**21**	
10:00 AM		7				7			7	
11:00 AM		16				16			16	
12:00 PM		13				13			13	
1:00 PM		15				15			15	
2:00 PM		19				19			19	
3:00 PM		21				21			21	
4:00 PM		33				33			33	
5:00 PM		**39**				**39**			**39**	
6:00 PM		21				21			21	
7:00 PM		14				14			14	
8:00 PM		12				12			12	
9:00 PM		4				4			4	
10:00 PM		3				3			3	
11:00 PM		1				1			1	
Day Total		267				267			267	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		9:00 AM 21				9:00 AM 21			9:00 AM 21	
PM Peak Volume		5:00 PM 39				5:00 PM 39			5:00 PM 39	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: Coloma Way btwn D St and B St
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812531
DIRECTION: NB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	11-20	2
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
5:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	11-20	1
6:00 AM	0	2	1	1	0	0	0	0	0	0	0	0	0	0	4	16-25	3
7:00 AM	1	0	1	4	**2**	**1**	0	0	0	0	0	0	0	0	9	26-35	6
8:00 AM	0	1	3	**7**	1	0	0	0	0	0	0	0	0	0	12	21-30	10
9:00 AM	1	**7**	6	7	0	0	0	0	0	0	0	0	0	0	**21**	21-30	12
10:00 AM	1	1	3	1	1	0	0	0	0	0	0	0	0	0	7	16-25	4
11:00 AM	**2**	4	**7**	1	2	0	0	0	0	0	0	0	0	0	16	17-26	10
12:00 PM	0	3	7	1	1	**1**	0	0	0	0	0	0	0	0	13	16-25	10
1:00 PM	1	1	4	7	**2**	0	0	0	0	0	0	0	0	0	15	23-32	10
2:00 PM	1	3	8	7	0	0	0	0	0	0	0	0	0	0	19	21-30	14
3:00 PM	0	3	11	6	1	0	0	0	0	0	0	0	0	0	21	21-30	17
4:00 PM	**5**	**8**	**14**	5	1	0	0	0	0	0	0	0	0	0	33	17-26	21
5:00 PM	3	6	11	**18**	1	0	0	0	0	0	0	0	0	0	**39**	21-30	29
6:00 PM	1	2	7	10	1	0	0	0	0	0	0	0	0	0	21	21-30	17
7:00 PM	2	0	5	7	0	0	0	0	0	0	0	0	0	0	14	21-30	11
8:00 PM	1	2	5	3	1	0	0	0	0	0	0	0	0	0	12	22-31	7
9:00 PM	0	1	2	1	0	0	0	0	0	0	0	0	0	0	4	21-30	3
10:00 PM	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3	21-30	3
11:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16-25	1
Day Total	19	47	97	88	14	2	0	0	0	0	0	0	0	0	267	21-30	185
Percent	7.1%	17.6%	36.3%	33.0%	5.2%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
267

AM Peak Volume	11:00 AM 2	9:00 AM 7	11:00 AM 7	8:00 AM 7	7:00 AM 2	7:00 AM 1		9:00 AM 21	
PM Peak Volume	4:00 PM 5	4:00 PM 8	4:00 PM 14	5:00 PM 18	1:00 PM 2	12:00 PM 1		5:00 PM 39	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: Coloma Way btwn D St and B St
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812531
DIRECTION: NB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	19	47	97	88	14	2	0	0	0	0	0	0	0	0	267	21-30	185
Percent	7.1%	17.6%	36.3%	33.0%	5.2%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	7.1%	24.7%	61.0%	94.0%	99.3%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT 267

85th Percentile 28 MPH

Mean Speed(Average): 22 MPH

Median 23 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: F Street between 53rd Street and Elvas Avenue
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812530
DIRECTION: WB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		4				4			4	
1:00 AM		3				3			3	
2:00 AM		1				1			1	
3:00 AM		4				4			4	
4:00 AM		14				14			14	
5:00 AM		23				23			23	
6:00 AM		108				108			108	
7:00 AM		139				139			139	
8:00 AM		**142**				**142**			**142**	
9:00 AM		91				91			91	
10:00 AM		92				92			92	
11:00 AM		73				73			73	
12:00 PM		**94**				**94**			**94**	
1:00 PM		91				91			91	
2:00 PM		86				86			86	
3:00 PM		84				84			84	
4:00 PM		76				76			76	
5:00 PM		72				72			72	
6:00 PM		75				75			75	
7:00 PM		28				28			28	
8:00 PM		26				26			26	
9:00 PM		26				26			26	
10:00 PM		15				15			15	
11:00 PM		7				7			7	
Day Total		1374				1374			1374	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		8:00 AM 142				8:00 AM 142			8:00 AM 142	
PM Peak Volume		12:00 PM 94				12:00 PM 94			12:00 PM 94	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: F Street between 53rd Street and Elvas Avenue
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812530
DIRECTION: WB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4	16-25	4
1:00 AM	0	1	0	2	0	0	0	0	0	0	0	0	0	0	3	21-30	2
2:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16-25	1
3:00 AM	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4	16-25	4
4:00 AM	0	2	10	2	0	0	0	0	0	0	0	0	0	0	14	16-25	12
5:00 AM	2	6	9	5	**1**	0	0	0	0	0	0	0	0	0	23	16-25	15
6:00 AM	11	40	42	**14**	1	0	0	0	0	0	0	0	0	0	108	16-25	82
7:00 AM	15	40	**73**	11	0	0	0	0	0	0	0	0	0	0	139	16-25	112
8:00 AM	28	**59**	50	5	0	0	0	0	0	0	0	0	0	0	**142**	16-25	109
9:00 AM	31	45	14	1	0	0	0	0	0	0	0	0	0	0	91	16-25	58
10:00 AM	**33**	41	17	1	0	0	0	0	0	0	0	0	0	0	92	16-25	58
11:00 AM	18	38	17	0	0	0	0	0	0	0	0	0	0	0	73	16-25	55
12:00 PM	**23**	**44**	26	1	0	0	0	0	0	0	0	0	0	0	**94**	16-25	70
1:00 PM	16	44	27	**4**	0	0	0	0	0	0	0	0	0	0	91	16-25	71
2:00 PM	22	38	24	2	0	0	0	0	0	0	0	0	0	0	86	16-25	61
3:00 PM	16	40	28	0	0	0	0	0	0	0	0	0	0	0	84	16-25	67
4:00 PM	13	42	21	0	0	0	0	0	0	0	0	0	0	0	76	16-25	63
5:00 PM	12	43	15	2	0	0	0	0	0	0	0	0	0	0	72	16-25	58
6:00 PM	9	35	**29**	2	0	0	0	0	0	0	0	0	0	0	75	16-25	63
7:00 PM	2	6	19	1	0	0	0	0	0	0	0	0	0	0	28	16-25	24
8:00 PM	5	9	12	0	0	0	0	0	0	0	0	0	0	0	26	16-25	20
9:00 PM	2	8	16	0	0	0	0	0	0	0	0	0	0	0	26	16-25	24
10:00 PM	0	4	9	2	0	0	0	0	0	0	0	0	0	0	15	16-25	13
11:00 PM	1	2	3	1	0	0	0	0	0	0	0	0	0	0	7	20-29	4
Day Total	259	592	465	56	2	0	0	0	0	0	0	0	0	0	1374	16-25	1057
Percent	18.9%	43.1%	33.8%	4.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT 1374

AM Peak Volume	10:00 AM 33	8:00 AM 59	7:00 AM 73	6:00 AM 14	5:00 AM 1		8:00 AM 142	
PM Peak Volume	12:00 PM 23	12:00 PM 44	6:00 PM 29	1:00 PM 4			12:00 PM 94	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: F Street between 53rd Street and Elvas Avenue
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812530
DIRECTION: WB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	259	592	465	56	2	0	0	0	0	0	0	0	0	0	1374	16-25	1057
Percent	18.9%	43.1%	33.8%	4.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	18.9%	61.9%	95.8%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
1374

85th Percentile 23 MPH

Mean Speed(Average): 17 MPH

Median 18 MPH
Mode: 18 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: F Street between 53rd Street and Elvas Avenue
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812530
DIRECTION: EB/WB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		17				17			17	
1:00 AM		13				13			13	
2:00 AM		3				3			3	
3:00 AM		10				10			10	
4:00 AM		19				19			19	
5:00 AM		27				27			27	
6:00 AM		130				130			130	
7:00 AM		**219**				**219**			**219**	
8:00 AM		203				203			203	
9:00 AM		155				155			155	
10:00 AM		169				169			169	
11:00 AM		168				168			168	
12:00 PM		160				160			160	
1:00 PM		176				176			176	
2:00 PM		184				184			184	
3:00 PM		**197**				**197**			**197**	
4:00 PM		192				192			192	
5:00 PM		157				157			157	
6:00 PM		127				127			127	
7:00 PM		92				92			92	
8:00 PM		59				59			59	
9:00 PM		50				50			50	
10:00 PM		27				27			27	
11:00 PM		29				29			29	
Day Total		2583				2583			2583	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		7:00 AM 219				7:00 AM 219			7:00 AM 219	
PM Peak Volume		3:00 PM 197				3:00 PM 197			3:00 PM 197	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: F Street between 53rd Street and Elvas Avenue
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812530
DIRECTION: EB/WB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	1	7	8	1	0	0	0	0	0	0	0	0	0	0	17	16-25	15
1:00 AM	0	3	5	5	0	0	0	0	0	0	0	0	0	0	13	21-30	10
2:00 AM	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3	21-30	3
3:00 AM	0	3	6	1	0	0	0	0	0	0	0	0	0	0	10	18-27	8
4:00 AM	1	3	13	2	0	0	0	0	0	0	0	0	0	0	19	16-25	16
5:00 AM	3	8	9	6	**1**	0	0	0	0	0	0	0	0	0	27	16-25	17
6:00 AM	11	50	54	14	1	0	0	0	0	0	0	0	0	0	130	16-25	104
7:00 AM	23	55	**116**	**25**	0	0	0	0	0	0	0	0	0	0	**219**	16-25	170
8:00 AM	31	**77**	83	12	0	0	0	0	0	0	0	0	0	0	203	16-25	160
9:00 AM	42	73	35	5	0	0	0	0	0	0	0	0	0	0	155	16-25	108
10:00 AM	**46**	70	51	2	0	0	0	0	0	0	0	0	0	0	169	16-25	120
11:00 AM	30	73	56	9	0	0	0	0	0	0	0	0	0	0	168	16-25	128
12:00 PM	32	64	58	6	0	0	0	0	0	0	0	0	0	0	160	16-25	121
1:00 PM	25	72	68	11	0	0	0	0	0	0	0	0	0	0	176	16-25	140
2:00 PM	**37**	62	78	7	0	0	0	0	0	0	0	0	0	0	184	16-25	140
3:00 PM	29	73	**84**	10	**1**	0	0	0	0	0	0	0	0	0	**197**	16-25	157
4:00 PM	23	**83**	79	7	0	0	0	0	0	0	0	0	0	0	192	16-25	162
5:00 PM	17	65	63	**12**	0	0	0	0	0	0	0	0	0	0	157	16-25	127
6:00 PM	13	49	59	6	0	0	0	0	0	0	0	0	0	0	127	16-25	108
7:00 PM	3	23	56	10	0	0	0	0	0	0	0	0	0	0	92	16-25	79
8:00 PM	9	16	32	1	1	0	0	0	0	0	0	0	0	0	59	16-25	48
9:00 PM	4	18	27	1	0	0	0	0	0	0	0	0	0	0	50	16-25	45
10:00 PM	2	6	15	4	0	0	0	0	0	0	0	0	0	0	27	16-25	21
11:00 PM	1	9	16	3	0	0	0	0	0	0	0	0	0	0	29	16-25	25
Day Total	383	962	1073	161	4	0	0	0	0	0	0	0	0	0	2583	16-25	2034
Percent	14.8%	37.2%	41.5%	6.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
2583

AM Peak Volume	10:00 AM 46	8:00 AM 77	7:00 AM 116	7:00 AM 25	5:00 AM 1		7:00 AM 219	
PM Peak Volume	2:00 PM 37	4:00 PM 83	3:00 PM 84	5:00 PM 12	3:00 PM 1		3:00 PM 197	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: F Street between 53rd Street and Elvas Avenue
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812530
DIRECTION: EB/WB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	383	962	1073	161	4	0	0	0	0	0	0	0	0	0	2583	16-25	2034
Percent	14.8%	37.2%	41.5%	6.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	14.8%	52.1%	93.6%	99.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
2583

85th Percentile 23 MPH

Mean Speed(Average): 18 MPH

Median 19 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: F Street between 53rd Street and Elvas Avenue
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812530
DIRECTION: EB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		13				13			13	
1:00 AM		10				10			10	
2:00 AM		2				2			2	
3:00 AM		6				6			6	
4:00 AM		5				5			5	
5:00 AM		4				4			4	
6:00 AM		22				22			22	
7:00 AM		80				80			80	
8:00 AM		61				61			61	
9:00 AM		64				64			64	
10:00 AM		77				77			77	
11:00 AM		**95**				**95**			**95**	
12:00 PM		66				66			66	
1:00 PM		85				85			85	
2:00 PM		98				98			98	
3:00 PM		113				113			113	
4:00 PM		**116**				**116**			**116**	
5:00 PM		85				85			85	
6:00 PM		52				52			52	
7:00 PM		64				64			64	
8:00 PM		33				33			33	
9:00 PM		24				24			24	
10:00 PM		12				12			12	
11:00 PM		22				22			22	
Day Total		1209				1209			1209	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		11:00 AM 95				11:00 AM 95			11:00 AM 95	
PM Peak Volume		4:00 PM 116				4:00 PM 116			4:00 PM 116	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: F Street between 53rd Street and Elvas Avenue
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812530
DIRECTION: EB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	1	4	7	1	0	0	0	0	0	0	0	0	0	0	13	17-26	10
1:00 AM	0	2	5	3	0	0	0	0	0	0	0	0	0	0	10	21-30	7
2:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	21-30	2
3:00 AM	0	1	4	1	0	0	0	0	0	0	0	0	0	0	6	16-25	5
4:00 AM	1	1	3	0	0	0	0	0	0	0	0	0	0	0	5	16-25	4
5:00 AM	1	2	0	1	0	0	0	0	0	0	0	0	0	0	4	15-24	2
6:00 AM	0	10	12	0	0	0	0	0	0	0	0	0	0	0	22	16-25	21
7:00 AM	8	15	**43**	**14**	0	0	0	0	0	0	0	0	0	0	80	16-25	58
8:00 AM	3	18	33	7	0	0	0	0	0	0	0	0	0	0	61	16-25	50
9:00 AM	11	28	21	4	0	0	0	0	0	0	0	0	0	0	64	16-25	49
10:00 AM	**13**	29	34	1	0	0	0	0	0	0	0	0	0	0	77	16-25	62
11:00 AM	12	**35**	39	9	0	0	0	0	0	0	0	0	0	0	**95**	16-25	74
12:00 PM	9	20	32	5	0	0	0	0	0	0	0	0	0	0	66	16-25	52
1:00 PM	9	28	41	7	0	0	0	0	0	0	0	0	0	0	85	16-25	69
2:00 PM	**15**	24	54	5	0	0	0	0	0	0	0	0	0	0	98	16-25	78
3:00 PM	13	33	56	**10**	**1**	0	0	0	0	0	0	0	0	0	113	16-25	88
4:00 PM	10	**41**	**58**	7	0	0	0	0	0	0	0	0	0	0	**116**	16-25	98
5:00 PM	5	22	48	10	0	0	0	0	0	0	0	0	0	0	85	16-25	70
6:00 PM	4	14	30	4	0	0	0	0	0	0	0	0	0	0	52	16-25	44
7:00 PM	1	17	37	9	0	0	0	0	0	0	0	0	0	0	64	16-25	54
8:00 PM	4	7	20	1	1	0	0	0	0	0	0	0	0	0	33	16-25	27
9:00 PM	2	10	11	1	0	0	0	0	0	0	0	0	0	0	24	16-25	21
10:00 PM	2	2	6	2	0	0	0	0	0	0	0	0	0	0	12	16-25	8
11:00 PM	0	7	13	2	0	0	0	0	0	0	0	0	0	0	22	16-25	20
Day Total	124	370	608	105	2	0	0	0	0	0	0	0	0	0	1209	16-25	977
Percent	10.3%	30.6%	50.3%	8.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
1209

AM Peak Volume	10:00 AM 13	11:00 AM 35	7:00 AM 43	7:00 AM 14			11:00 AM 95	
PM Peak Volume	2:00 PM 15	4:00 PM 41	4:00 PM 58	3:00 PM 10	3:00 PM 1		4:00 PM 116	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: F Street between 53rd Street and Elvas Avenue
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812530
DIRECTION: EB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	124	370	608	105	2	0	0	0	0	0	0	0	0	0	1209	16-25	977
Percent	10.3%	30.6%	50.3%	8.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	10.3%	40.9%	91.1%	99.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
1209

85th Percentile 24 MPH

Mean Speed(Average): 19 MPH

Median 20 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: 51st St btwn C St and Brand Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812529
DIRECTION: SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		2				2			2	
1:00 AM		0				0			0	
2:00 AM		0				0			0	
3:00 AM		0				0			0	
4:00 AM		1				1			1	
5:00 AM		1				1			1	
6:00 AM		10				10			10	
7:00 AM		**14**				**14**			**14**	
8:00 AM		8				8			8	
9:00 AM		12				12			12	
10:00 AM		8				8			8	
11:00 AM		14				14			14	
12:00 PM		18				18			18	
1:00 PM		9				9			9	
2:00 PM		14				14			14	
3:00 PM		16				16			16	
4:00 PM		14				14			14	
5:00 PM		**26**				**26**			**26**	
6:00 PM		16				16			16	
7:00 PM		5				5			5	
8:00 PM		3				3			3	
9:00 PM		5				5			5	
10:00 PM		2				2			2	
11:00 PM		2				2			2	
Day Total		200				200			200	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		7:00 AM 14				7:00 AM 14			7:00 AM 14	
PM Peak Volume		5:00 PM 26				5:00 PM 26			5:00 PM 26	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: 51st St btwn C St and Brand Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812529
DIRECTION: SB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	16-25	2
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
4:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16-25	1
5:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	15-24	0
6:00 AM	**3**	4	3	0	0	0	0	0	0	0	0	0	0	0	10	17-26	6
7:00 AM	1	3	**9**	1	0	0	0	0	0	0	0	0	0	0	**14**	16-25	12
8:00 AM	0	2	4	2	0	0	0	0	0	0	0	0	0	0	8	21-30	6
9:00 AM	0	4	5	1	**2**	0	0	0	0	0	0	0	0	0	12	16-25	9
10:00 AM	0	0	4	**4**	0	0	0	0	0	0	0	0	0	0	8	21-30	8
11:00 AM	2	**5**	6	1	0	0	0	0	0	0	0	0	0	0	14	17-26	10
12:00 PM	1	3	10	3	**1**	0	0	0	0	0	0	0	0	0	18	21-30	13
1:00 PM	2	1	3	3	0	0	0	0	0	0	0	0	0	0	9	22-31	5
2:00 PM	**4**	6	2	2	0	0	0	0	0	0	0	0	0	0	14	16-25	8
3:00 PM	1	5	7	2	1	0	0	0	0	0	0	0	0	0	16	17-26	11
4:00 PM	3	3	6	2	0	0	0	0	0	0	0	0	0	0	14	20-29	8
5:00 PM	1	**8**	**12**	**4**	1	0	0	0	0	0	0	0	0	0	**26**	17-26	19
6:00 PM	4	3	6	3	0	0	0	0	0	0	0	0	0	0	16	17-26	9
7:00 PM	1	1	3	0	0	0	0	0	0	0	0	0	0	0	5	16-25	4
8:00 PM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3	16-25	3
9:00 PM	0	1	4	0	0	0	0	0	0	0	0	0	0	0	5	16-25	5
10:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	16-25	2
11:00 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	21-30	2
Day Total	24	53	88	30	5	0	0	0	0	0	0	0	0	0	200	16-25	141
Percent	12.0%	26.5%	44.0%	15.0%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
200

AM Peak Volume	6:00 AM 3	11:00 AM 5	7:00 AM 9	10:00 AM 4	9:00 AM 2		7:00 AM 14	
PM Peak Volume	2:00 PM 4	5:00 PM 8	5:00 PM 12	5:00 PM 4	12:00 PM 1		5:00 PM 26	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: 51st St btwn C St and Brand Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812529
DIRECTION: SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	24	53	88	30	5	0	0	0	0	0	0	0	0	0	200	16-25	141
Percent	12.0%	26.5%	44.0%	15.0%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	12.0%	38.5%	82.5%	97.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
200

85th Percentile 25 MPH

Mean Speed(Average): 20 MPH

Median 21 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: 51st St btwn C St and Brand Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812529
DIRECTION: NB/SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		2				2			2	
1:00 AM		0				0			0	
2:00 AM		0				0			0	
3:00 AM		0				0			0	
4:00 AM		2				2			2	
5:00 AM		2				2			2	
6:00 AM		12				12			12	
7:00 AM		22				22			22	
8:00 AM		15				15			15	
9:00 AM		20				20			20	
10:00 AM		14				14			14	
11:00 AM		**24**				**24**			**24**	
12:00 PM		31				31			31	
1:00 PM		22				22			22	
2:00 PM		25				25			25	
3:00 PM		28				28			28	
4:00 PM		**37**				**37**			**37**	
5:00 PM		34				34			34	
6:00 PM		28				28			28	
7:00 PM		16				16			16	
8:00 PM		8				8			8	
9:00 PM		7				7			7	
10:00 PM		4				4			4	
11:00 PM		4				4			4	
Day Total		357				357			357	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		11:00 AM 24				11:00 AM 24			11:00 AM 24	
PM Peak Volume		4:00 PM 37				4:00 PM 37			4:00 PM 37	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: 51st St btwn C St and Brand Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812529
DIRECTION: NB/SB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	16-25	2
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
4:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	16-25	2
5:00 AM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	15-24	1
6:00 AM	**3**	5	4	0	0	0	0	0	0	0	0	0	0	0	12	16-25	9
7:00 AM	1	4	**14**	2	1	0	0	0	0	0	0	0	0	0	22	16-25	18
8:00 AM	0	4	7	4	0	0	0	0	0	0	0	0	0	0	15	21-30	11
9:00 AM	1	**6**	7	4	**2**	0	0	0	0	0	0	0	0	0	20	18-27	12
10:00 AM	1	0	8	**5**	0	0	0	0	0	0	0	0	0	0	14	21-30	13
11:00 AM	3	6	10	4	1	0	0	0	0	0	0	0	0	0	**24**	16-25	16
12:00 PM	4	5	14	5	**3**	0	0	0	0	0	0	0	0	0	31	16-25	19
1:00 PM	**7**	1	5	**8**	1	0	0	0	0	0	0	0	0	0	22	21-30	13
2:00 PM	7	7	7	4	0	0	0	0	0	0	0	0	0	0	25	17-26	13
3:00 PM	3	9	12	3	1	0	0	0	0	0	0	0	0	0	28	16-25	20
4:00 PM	5	8	**17**	7	0	0	0	0	0	0	0	0	0	0	**37**	20-29	24
5:00 PM	1	**10**	17	5	1	0	0	0	0	0	0	0	0	0	34	16-25	26
6:00 PM	7	6	11	4	0	0	0	0	0	0	0	0	0	0	28	16-25	17
7:00 PM	1	3	9	3	0	0	0	0	0	0	0	0	0	0	16	21-30	12
8:00 PM	0	3	5	0	0	0	0	0	0	0	0	0	0	0	8	16-25	8
9:00 PM	0	1	6	0	0	0	0	0	0	0	0	0	0	0	7	16-25	7
10:00 PM	0	1	3	0	0	0	0	0	0	0	0	0	0	0	4	16-25	4
11:00 PM	0	0	2	2	0	0	0	0	0	0	0	0	0	0	4	21-30	4
Day Total	45	82	160	60	10	0	0	0	0	0	0	0	0	0	357	16-25	242
Percent	12.6%	23.0%	44.8%	16.8%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT 357

AM Peak Volume	6:00 AM 3	9:00 AM 6	7:00 AM 14	10:00 AM 5	9:00 AM 2		11:00 AM 24	
PM Peak Volume	1:00 PM 7	5:00 PM 10	4:00 PM 17	1:00 PM 8	12:00 PM 3		4:00 PM 37	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: 51st St btwn C St and Brand Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812529
DIRECTION: NB/SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	45	82	160	60	10	0	0	0	0	0	0	0	0	0	357	16-25	242
Percent	12.6%	23.0%	44.8%	16.8%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	12.6%	35.6%	80.4%	97.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
357

85th Percentile 26 MPH

Mean Speed(Average): 20 MPH

Median 21 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: 51st St btwn C St and Brand Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812529
DIRECTION: NB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		0				0			0	
1:00 AM		0				0			0	
2:00 AM		0				0			0	
3:00 AM		0				0			0	
4:00 AM		1				1			1	
5:00 AM		1				1			1	
6:00 AM		2				2			2	
7:00 AM		8				8			8	
8:00 AM		7				7			7	
9:00 AM		8				8			8	
10:00 AM		6				6			6	
11:00 AM		**10**				**10**			**10**	
12:00 PM		13				13			13	
1:00 PM		13				13			13	
2:00 PM		11				11			11	
3:00 PM		12				12			12	
4:00 PM		**23**				**23**			**23**	
5:00 PM		8				8			8	
6:00 PM		12				12			12	
7:00 PM		11				11			11	
8:00 PM		5				5			5	
9:00 PM		2				2			2	
10:00 PM		2				2			2	
11:00 PM		2				2			2	
Day Total		157				157			157	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		11:00 AM 10				11:00 AM 10			11:00 AM 10	
PM Peak Volume		4:00 PM 23				4:00 PM 23			4:00 PM 23	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: 51st St btwn C St and Brand Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812529
DIRECTION: NB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
4:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	11-20	1
5:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	11-20	1
6:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	16-25	2
7:00 AM	0	1	**5**	1	**1**	0	0	0	0	0	0	0	0	0	8	16-25	6
8:00 AM	0	**2**	3	2	0	0	0	0	0	0	0	0	0	0	7	21-30	5
9:00 AM	**1**	2	2	**3**	0	0	0	0	0	0	0	0	0	0	8	23-32	4
10:00 AM	1	0	4	1	0	0	0	0	0	0	0	0	0	0	6	22-31	4
11:00 AM	1	1	4	3	1	0	0	0	0	0	0	0	0	0	**10**	22-31	6
12:00 PM	3	2	4	2	**2**	0	0	0	0	0	0	0	0	0	13	21-30	6
1:00 PM	**5**	0	2	**5**	1	0	0	0	0	0	0	0	0	0	13	21-30	7
2:00 PM	3	1	5	2	0	0	0	0	0	0	0	0	0	0	11	21-30	7
3:00 PM	2	4	5	1	0	0	0	0	0	0	0	0	0	0	12	16-25	9
4:00 PM	2	**5**	**11**	5	0	0	0	0	0	0	0	0	0	0	**23**	20-29	16
5:00 PM	0	2	5	1	0	0	0	0	0	0	0	0	0	0	8	16-25	7
6:00 PM	3	3	5	1	0	0	0	0	0	0	0	0	0	0	12	16-25	8
7:00 PM	0	2	6	3	0	0	0	0	0	0	0	0	0	0	11	21-30	9
8:00 PM	0	1	4	0	0	0	0	0	0	0	0	0	0	0	5	16-25	5
9:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	16-25	2
10:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	16-25	2
11:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	16-25	2
Day Total	21	29	72	30	5	0	0	0	0	0	0	0	0	0	157	21-30	102
Percent	13.4%	18.5%	45.9%	19.1%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
157

AM Peak Volume	9:00 AM 1	8:00 AM 2	7:00 AM 5	9:00 AM 3	7:00 AM 1		11:00 AM 10	
PM Peak Volume	1:00 PM 5	4:00 PM 5	4:00 PM 11	1:00 PM 5	12:00 PM 2		4:00 PM 23	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: 51st St btwn C St and Brand Way
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812529
DIRECTION: NB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	21	29	72	30	5	0	0	0	0	0	0	0	0	0	157	21-30	102
Percent	13.4%	18.5%	45.9%	19.1%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	13.4%	31.8%	77.7%	96.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
157

85th Percentile 26 MPH

Mean Speed(Average): 20 MPH

Median 21 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: 53rd Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812528
DIRECTION: SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		16				16			16	
1:00 AM		10				10			10	
2:00 AM		8				8			8	
3:00 AM		6				6			6	
4:00 AM		6				6			6	
5:00 AM		14				14			14	
6:00 AM		28				28			28	
7:00 AM		102				102			102	
8:00 AM		48				48			48	
9:00 AM		81				81			81	
10:00 AM		85				85			85	
11:00 AM		**117**				**117**			**117**	
12:00 PM		88				88			88	
1:00 PM		115				115			115	
2:00 PM		130				130			130	
3:00 PM		**141**				**141**			**141**	
4:00 PM		140				140			140	
5:00 PM		113				113			113	
6:00 PM		90				90			90	
7:00 PM		107				107			107	
8:00 PM		47				47			47	
9:00 PM		26				26			26	
10:00 PM		37				37			37	
11:00 PM		31				31			31	
Day Total		1586				1586			1586	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		11:00 AM 117				11:00 AM 117			11:00 AM 117	
PM Peak Volume		3:00 PM 141				3:00 PM 141			3:00 PM 141	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: 53rd Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812528
DIRECTION: SB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	2	2	6	4	**2**	0	0	0	0	0	0	0	0	0	16	21-30	10
1:00 AM	0	1	9	0	0	0	0	0	0	0	0	0	0	0	10	16-25	10
2:00 AM	0	3	2	3	0	0	0	0	0	0	0	0	0	0	8	18-27	5
3:00 AM	0	0	3	3	0	0	0	0	0	0	0	0	0	0	6	22-31	5
4:00 AM	0	3	2	1	0	0	0	0	0	0	0	0	0	0	6	16-25	5
5:00 AM	1	3	6	3	1	0	0	0	0	0	0	0	0	0	14	17-26	9
6:00 AM	5	10	10	2	0	**1**	0	0	0	0	0	0	0	0	28	16-25	20
7:00 AM	**24**	32	35	**10**	1	0	0	0	0	0	0	0	0	0	102	16-25	67
8:00 AM	12	17	15	4	0	0	0	0	0	0	0	0	0	0	48	16-25	32
9:00 AM	14	27	31	9	0	0	0	0	0	0	0	0	0	0	81	16-25	58
10:00 AM	22	29	27	7	0	0	0	0	0	0	0	0	0	0	85	16-25	56
11:00 AM	18	**41**	**49**	9	0	0	0	0	0	0	0	0	0	0	**117**	16-25	90
12:00 PM	17	36	28	7	0	0	0	0	0	0	0	0	0	0	88	16-25	63
1:00 PM	22	32	47	**12**	**1**	**1**	0	0	0	0	0	0	0	0	115	16-25	79
2:00 PM	22	43	54	10	0	1	0	0	0	0	0	0	0	0	130	16-25	97
3:00 PM	27	**48**	**59**	7	0	0	0	0	0	0	0	0	0	0	**141**	16-25	107
4:00 PM	**44**	41	51	4	0	0	0	0	0	0	0	0	0	0	140	16-25	91
5:00 PM	36	43	31	3	0	0	0	0	0	0	0	0	0	0	113	16-25	74
6:00 PM	21	41	22	6	0	0	0	0	0	0	0	0	0	0	90	16-25	63
7:00 PM	17	42	45	3	0	0	0	0	0	0	0	0	0	0	107	16-25	87
8:00 PM	0	13	30	4	0	0	0	0	0	0	0	0	0	0	47	16-25	43
9:00 PM	2	8	14	2	0	0	0	0	0	0	0	0	0	0	26	16-25	21
10:00 PM	1	10	18	8	0	0	0	0	0	0	0	0	0	0	37	16-25	28
11:00 PM	1	10	16	3	1	0	0	0	0	0	0	0	0	0	31	16-25	26
Day Total	308	535	610	124	6	3	0	0	0	0	0	0	0	0	1586	16-25	1145
Percent	19.4%	33.7%	38.5%	7.8%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT 1586

AM Peak Volume	7:00 AM 24	11:00 AM 41	11:00 AM 49	7:00 AM 10	12:00 AM 2	6:00 AM 1	11:00 AM 117		
PM Peak Volume	4:00 PM 44	3:00 PM 48	3:00 PM 59	1:00 PM 12	1:00 PM 1	1:00 PM 1	3:00 PM 141		

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: 53rd Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812528
DIRECTION: SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	308	535	610	124	6	3	0	0	0	0	0	0	0	0	1586	16-25	1145
Percent	19.4%	33.7%	38.5%	7.8%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	19.4%	53.2%	91.6%	99.4%	99.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
1586

85th Percentile 24 MPH

Mean Speed(Average): 18 MPH

Median 19 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: 53rd Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812528
DIRECTION: NB/SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		23				23			23	
1:00 AM		16				16			16	
2:00 AM		14				14			14	
3:00 AM		10				10			10	
4:00 AM		26				26			26	
5:00 AM		57				57			57	
6:00 AM		176				176			176	
7:00 AM		200				200			200	
8:00 AM		183				183			183	
9:00 AM		210				210			210	
10:00 AM		191				191			191	
11:00 AM		**212**				**212**			**212**	
12:00 PM		186				186			186	
1:00 PM		**224**				**224**			**224**	
2:00 PM		211				211			211	
3:00 PM		220				220			220	
4:00 PM		196				196			196	
5:00 PM		194				194			194	
6:00 PM		181				181			181	
7:00 PM		152				152			152	
8:00 PM		85				85			85	
9:00 PM		59				59			59	
10:00 PM		65				65			65	
11:00 PM		41				41			41	
Day Total		3132				3132			3132	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		11:00 AM 212				11:00 AM 212			11:00 AM 212	
PM Peak Volume		1:00 PM 224				1:00 PM 224			1:00 PM 224	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: 53rd Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812528
DIRECTION: NB/SB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	2	3	12	4	2	0	0	0	0	0	0	0	0	0	23	21-30	16
1:00 AM	1	2	12	1	0	0	0	0	0	0	0	0	0	0	16	16-25	14
2:00 AM	0	4	6	4	0	0	0	0	0	0	0	0	0	0	14	21-30	10
3:00 AM	0	0	6	4	0	0	0	0	0	0	0	0	0	0	10	21-30	10
4:00 AM	0	7	16	3	0	0	0	0	0	0	0	0	0	0	26	16-25	23
5:00 AM	4	8	29	14	2	0	0	0	0	0	0	0	0	0	57	21-30	42
6:00 AM	11	38	80	**41**	**5**	**1**	0	0	0	0	0	0	0	0	176	21-30	120
7:00 AM	**46**	62	74	16	2	0	0	0	0	0	0	0	0	0	200	16-25	136
8:00 AM	35	48	69	27	4	0	0	0	0	0	0	0	0	0	183	16-25	117
9:00 AM	36	**69**	87	17	1	0	0	0	0	0	0	0	0	0	210	16-25	156
10:00 AM	32	69	70	19	1	0	0	0	0	0	0	0	0	0	191	16-25	139
11:00 AM	32	64	**101**	15	0	0	0	0	0	0	0	0	0	0	**212**	16-25	164
12:00 PM	26	71	78	10	1	0	0	0	0	0	0	0	0	0	186	16-25	149
1:00 PM	32	65	**104**	**21**	1	**1**	0	0	0	0	0	0	0	0	**224**	16-25	169
2:00 PM	33	66	92	17	**2**	1	0	0	0	0	0	0	0	0	211	16-25	158
3:00 PM	41	71	95	13	0	0	0	0	0	0	0	0	0	0	220	16-25	166
4:00 PM	**58**	59	74	5	0	0	0	0	0	0	0	0	0	0	196	16-25	133
5:00 PM	57	**80**	51	5	1	0	0	0	0	0	0	0	0	0	194	16-25	130
6:00 PM	42	68	56	14	1	0	0	0	0	0	0	0	0	0	181	16-25	123
7:00 PM	28	58	58	7	1	0	0	0	0	0	0	0	0	0	152	16-25	115
8:00 PM	5	22	50	8	0	0	0	0	0	0	0	0	0	0	85	16-25	72
9:00 PM	10	15	31	3	0	0	0	0	0	0	0	0	0	0	59	16-25	46
10:00 PM	3	12	34	16	0	0	0	0	0	0	0	0	0	0	65	21-30	50
11:00 PM	1	12	21	6	1	0	0	0	0	0	0	0	0	0	41	16-25	33
Day Total	535	973	1306	290	25	3	0	0	0	0	0	0	0	0	3132	16-25	2278
Percent	17.1%	31.1%	41.7%	9.3%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
3132

AM Peak Volume	7:00 AM 46	9:00 AM 69	11:00 AM 101	6:00 AM 41	6:00 AM 5	6:00 AM 1		11:00 AM 212	
PM Peak Volume	4:00 PM 58	5:00 PM 80	1:00 PM 104	1:00 PM 21	2:00 PM 2	1:00 PM 1		1:00 PM 224	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: 53rd Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812528
DIRECTION: NB/SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	535	973	1306	290	25	3	0	0	0	0	0	0	0	0	3132	16-25	2278
Percent	17.1%	31.1%	41.7%	9.3%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	17.1%	48.1%	89.8%	99.1%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
3132

85th Percentile 24 MPH

Mean Speed(Average): 18 MPH

Median 20 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: 53rd Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812528
DIRECTION: NB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		7				7			7	
1:00 AM		6				6			6	
2:00 AM		6				6			6	
3:00 AM		4				4			4	
4:00 AM		20				20			20	
5:00 AM		43				43			43	
6:00 AM		**148**				**148**			**148**	
7:00 AM		98				98			98	
8:00 AM		135				135			135	
9:00 AM		129				129			129	
10:00 AM		106				106			106	
11:00 AM		95				95			95	
12:00 PM		98				98			98	
1:00 PM		**109**				**109**			**109**	
2:00 PM		81				81			81	
3:00 PM		79				79			79	
4:00 PM		56				56			56	
5:00 PM		81				81			81	
6:00 PM		91				91			91	
7:00 PM		45				45			45	
8:00 PM		38				38			38	
9:00 PM		33				33			33	
10:00 PM		28				28			28	
11:00 PM		10				10			10	
Day Total		1546				1546			1546	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		6:00 AM 148				6:00 AM 148			6:00 AM 148	
PM Peak Volume		1:00 PM 109				1:00 PM 109			1:00 PM 109	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: 53rd Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812528
DIRECTION: NB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	1	6	0	0	0	0	0	0	0	0	0	0	0	7	16-25	7
1:00 AM	1	1	3	1	0	0	0	0	0	0	0	0	0	0	6	16-25	4
2:00 AM	0	1	4	1	0	0	0	0	0	0	0	0	0	0	6	16-25	5
3:00 AM	0	0	3	1	0	0	0	0	0	0	0	0	0	0	4	21-30	4
4:00 AM	0	4	14	2	0	0	0	0	0	0	0	0	0	0	20	16-25	18
5:00 AM	3	5	23	11	1	0	0	0	0	0	0	0	0	0	43	21-30	34
6:00 AM	6	28	**70**	**39**	**5**	0	0	0	0	0	0	0	0	0	**148**	21-30	109
7:00 AM	22	30	39	6	1	0	0	0	0	0	0	0	0	0	98	16-25	69
8:00 AM	**23**	31	54	23	4	0	0	0	0	0	0	0	0	0	135	16-25	85
9:00 AM	22	**42**	56	8	1	0	0	0	0	0	0	0	0	0	129	16-25	97
10:00 AM	10	40	43	12	1	0	0	0	0	0	0	0	0	0	106	16-25	82
11:00 AM	14	23	52	6	0	0	0	0	0	0	0	0	0	0	95	16-25	75
12:00 PM	9	35	50	3	1	0	0	0	0	0	0	0	0	0	98	16-25	85
1:00 PM	10	33	**57**	**9**	0	0	0	0	0	0	0	0	0	0	**109**	16-25	90
2:00 PM	11	23	38	7	**2**	0	0	0	0	0	0	0	0	0	81	16-25	60
3:00 PM	14	23	36	6	0	0	0	0	0	0	0	0	0	0	79	16-25	59
4:00 PM	14	18	23	1	0	0	0	0	0	0	0	0	0	0	56	16-25	41
5:00 PM	**21**	**37**	20	2	1	0	0	0	0	0	0	0	0	0	81	16-25	57
6:00 PM	21	27	34	8	1	0	0	0	0	0	0	0	0	0	91	16-25	60
7:00 PM	11	16	13	4	1	0	0	0	0	0	0	0	0	0	45	16-25	29
8:00 PM	5	9	20	4	0	0	0	0	0	0	0	0	0	0	38	16-25	29
9:00 PM	8	7	17	1	0	0	0	0	0	0	0	0	0	0	33	16-25	23
10:00 PM	2	2	16	8	0	0	0	0	0	0	0	0	0	0	28	21-30	24
11:00 PM	0	2	5	3	0	0	0	0	0	0	0	0	0	0	10	21-30	7
Day Total	227	438	696	166	19	0	0	0	0	0	0	0	0	0	1546	16-25	1134
Percent	14.7%	28.3%	45.0%	10.7%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
ADT 1546																	
AM Peak Volume	8:00 AM 23	9:00 AM 42	6:00 AM 70	6:00 AM 39	6:00 AM 5										6:00 AM 148		
PM Peak Volume	5:00 PM 21	5:00 PM 37	1:00 PM 57	1:00 PM 9	2:00 PM 2										1:00 PM 109		

Comments:

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: 53rd Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812528
DIRECTION: NB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	227	438	696	166	19	0	0	0	0	0	0	0	0	0	1546	16-25	1134
Percent	14.7%	28.3%	45.0%	10.7%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	14.7%	43.0%	88.0%	98.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
1546

85th Percentile 24 MPH

Mean Speed(Average): 19 MPH

Median 20 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: 52nd Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812527
DIRECTION: SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		2				2			2	
1:00 AM		0				0			0	
2:00 AM		3				3			3	
3:00 AM		3				3			3	
4:00 AM		1				1			1	
5:00 AM		4				4			4	
6:00 AM		17				17			17	
7:00 AM		31				31			31	
8:00 AM		**39**				**39**			**39**	
9:00 AM		24				24			24	
10:00 AM		15				15			15	
11:00 AM		22				22			22	
12:00 PM		22				22			22	
1:00 PM		20				20			20	
2:00 PM		17				17			17	
3:00 PM		25				25			25	
4:00 PM		22				22			22	
5:00 PM		25				25			25	
6:00 PM		**29**				**29**			**29**	
7:00 PM		14				14			14	
8:00 PM		6				6			6	
9:00 PM		7				7			7	
10:00 PM		8				8			8	
11:00 PM		3				3			3	
Day Total		359				359			359	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		8:00 AM 39				8:00 AM 39			8:00 AM 39	
PM Peak Volume		6:00 PM 29				6:00 PM 29			6:00 PM 29	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: 52nd Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812527
DIRECTION: SB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	21-30	2
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
2:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3	16-25	3
3:00 AM	1	0	1	1	0	0	0	0	0	0	0	0	0	0	3	21-30	2
4:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	21-30	1
5:00 AM	0	0	3	1	0	0	0	0	0	0	0	0	0	0	4	21-30	4
6:00 AM	0	4	8	4	1	0	0	0	0	0	0	0	0	0	17	21-30	12
7:00 AM	1	5	13	**9**	**2**	**1**	0	0	0	0	0	0	0	0	31	21-30	21
8:00 AM	2	**10**	**18**	8	1	0	0	0	0	0	0	0	0	0	**39**	16-25	28
9:00 AM	**3**	10	6	3	2	0	0	0	0	0	0	0	0	0	24	16-25	15
10:00 AM	2	5	5	2	1	0	0	0	0	0	0	0	0	0	15	16-25	10
11:00 AM	3	10	8	0	1	0	0	0	0	0	0	0	0	0	22	16-25	18
12:00 PM	0	6	10	5	1	0	0	0	0	0	0	0	0	0	22	16-25	16
1:00 PM	1	4	8	**7**	0	0	0	0	0	0	0	0	0	0	20	21-30	14
2:00 PM	3	2	8	4	0	0	0	0	0	0	0	0	0	0	17	21-30	12
3:00 PM	4	5	10	4	**2**	0	0	0	0	0	0	0	0	0	25	16-25	15
4:00 PM	2	6	**11**	3	0	0	0	0	0	0	0	0	0	0	22	16-25	17
5:00 PM	**5**	**11**	5	4	0	0	0	0	0	0	0	0	0	0	25	16-25	16
6:00 PM	3	11	10	3	2	0	0	0	0	0	0	0	0	0	**29**	16-25	21
7:00 PM	1	4	5	3	1	0	0	0	0	0	0	0	0	0	14	16-25	9
8:00 PM	0	0	5	1	0	0	0	0	0	0	0	0	0	0	6	21-30	5
9:00 PM	2	0	1	3	1	0	0	0	0	0	0	0	0	0	7	21-30	4
10:00 PM	3	2	1	2	0	0	0	0	0	0	0	0	0	0	8	21-30	3
11:00 PM	1	1	1	0	0	0	0	0	0	0	0	0	0	0	3	16-25	2
Day Total	37	98	139	69	15	1	0	0	0	0	0	0	0	0	359	16-25	237
Percent	10.3%	27.3%	38.7%	19.2%	4.2%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
359

AM Peak Volume	9:00 AM 3	8:00 AM 10	8:00 AM 18	7:00 AM 9	7:00 AM 2	7:00 AM 1		8:00 AM 39	
PM Peak Volume	5:00 PM 5	5:00 PM 11	4:00 PM 11	1:00 PM 7	3:00 PM 2			6:00 PM 29	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: 52nd Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812527
DIRECTION: SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	37	98	139	69	15	1	0	0	0	0	0	0	0	0	359	16-25	237
Percent	10.3%	27.3%	38.7%	19.2%	4.2%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	10.3%	37.6%	76.3%	95.5%	99.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
359

85th Percentile 27 MPH

Mean Speed(Average): 21 MPH

Median 21 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: 52nd Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812527
DIRECTION: NB/SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		3				3			3	
1:00 AM		1				1			1	
2:00 AM		4				4			4	
3:00 AM		4				4			4	
4:00 AM		2				2			2	
5:00 AM		8				8			8	
6:00 AM		29				29			29	
7:00 AM		52				52			52	
8:00 AM		**62**				**62**			**62**	
9:00 AM		59				59			59	
10:00 AM		47				47			47	
11:00 AM		57				57			57	
12:00 PM		**59**				**59**			**59**	
1:00 PM		48				48			48	
2:00 PM		54				54			54	
3:00 PM		54				54			54	
4:00 PM		45				45			45	
5:00 PM		52				52			52	
6:00 PM		51				51			51	
7:00 PM		34				34			34	
8:00 PM		13				13			13	
9:00 PM		17				17			17	
10:00 PM		13				13			13	
11:00 PM		5				5			5	
Day Total		773				773			773	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		8:00 AM 62				8:00 AM 62			8:00 AM 62	
PM Peak Volume		12:00 PM 59				12:00 PM 59			12:00 PM 59	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: 52nd Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812527
DIRECTION: NB/SB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3	21-30	3
1:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16-25	1
2:00 AM	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4	16-25	4
3:00 AM	2	0	1	1	0	0	0	0	0	0	0	0	0	0	4	21-30	2
4:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	11-20	1
5:00 AM	1	1	3	3	0	0	0	0	0	0	0	0	0	0	8	22-31	5
6:00 AM	1	7	12	7	2	0	0	0	0	0	0	0	0	0	29	21-30	18
7:00 AM	3	16	15	**14**	**3**	**1**	0	0	0	0	0	0	0	0	52	16-25	31
8:00 AM	4	15	**29**	12	2	0	0	0	0	0	0	0	0	0	**62**	17-26	43
9:00 AM	**7**	**18**	20	11	3	0	0	0	0	0	0	0	0	0	59	16-25	38
10:00 AM	5	13	19	8	2	0	0	0	0	0	0	0	0	0	47	16-25	31
11:00 AM	3	18	28	7	1	0	0	0	0	0	0	0	0	0	57	16-25	45
12:00 PM	3	12	**25**	**15**	2	**2**	0	0	0	0	0	0	0	0	**59**	21-30	40
1:00 PM	1	13	21	11	2	0	0	0	0	0	0	0	0	0	48	16-25	34
2:00 PM	4	15	21	11	**3**	0	0	0	0	0	0	0	0	0	54	16-25	36
3:00 PM	4	13	24	11	2	0	0	0	0	0	0	0	0	0	54	18-27	36
4:00 PM	3	10	22	10	0	0	0	0	0	0	0	0	0	0	45	20-29	32
5:00 PM	**7**	**21**	14	9	1	0	0	0	0	0	0	0	0	0	52	16-25	34
6:00 PM	5	17	20	6	3	0	0	0	0	0	0	0	0	0	51	16-25	37
7:00 PM	3	7	11	12	1	0	0	0	0	0	0	0	0	0	34	21-30	22
8:00 PM	1	2	7	1	2	0	0	0	0	0	0	0	0	0	13	16-25	9
9:00 PM	3	1	6	5	2	0	0	0	0	0	0	0	0	0	17	21-30	11
10:00 PM	5	2	3	3	0	0	0	0	0	0	0	0	0	0	13	22-31	5
11:00 PM	2	1	1	1	0	0	0	0	0	0	0	0	0	0	5	21-30	2
Day Total	67	206	305	161	31	3	0	0	0	0	0	0	0	0	773	16-25	511
Percent	8.7%	26.6%	39.5%	20.8%	4.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
773

AM Peak Volume	9:00 AM 7	9:00 AM 18	8:00 AM 29	7:00 AM 14	7:00 AM 3	7:00 AM 1	8:00 AM 62		
PM Peak Volume	5:00 PM 7	5:00 PM 21	12:00 PM 25	12:00 PM 15	2:00 PM 3	12:00 PM 2	12:00 PM 59		

Comments:

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: 52nd Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812527
DIRECTION: NB/SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	67	206	305	161	31	3	0	0	0	0	0	0	0	0	773	16-25	511
Percent	8.7%	26.6%	39.5%	20.8%	4.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	8.7%	35.3%	74.8%	95.6%	99.6%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
773

85th Percentile 27 MPH

Mean Speed(Average): 21 MPH

Median 21 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: 52nd Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812527
DIRECTION: NB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		1				1			1	
1:00 AM		1				1			1	
2:00 AM		1				1			1	
3:00 AM		1				1			1	
4:00 AM		1				1			1	
5:00 AM		4				4			4	
6:00 AM		12				12			12	
7:00 AM		21				21			21	
8:00 AM		23				23			23	
9:00 AM		**35**				**35**			**35**	
10:00 AM		32				32			32	
11:00 AM		35				35			35	
12:00 PM		**37**				**37**			**37**	
1:00 PM		28				28			28	
2:00 PM		37				37			37	
3:00 PM		29				29			29	
4:00 PM		23				23			23	
5:00 PM		27				27			27	
6:00 PM		22				22			22	
7:00 PM		20				20			20	
8:00 PM		7				7			7	
9:00 PM		10				10			10	
10:00 PM		5				5			5	
11:00 PM		2				2			2	
Day Total		414				414			414	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		9:00 AM 35				9:00 AM 35			9:00 AM 35	
PM Peak Volume		12:00 PM 37				12:00 PM 37			12:00 PM 37	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: 52nd Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812527
DIRECTION: NB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	21-30	1
1:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16-25	1
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	11-20	1
3:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	15-24	0
4:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	11-20	1
5:00 AM	1	1	0	2	0	0	0	0	0	0	0	0	0	0	4	21-30	2
6:00 AM	1	3	4	3	**1**	0	0	0	0	0	0	0	0	0	12	18-27	7
7:00 AM	2	**11**	2	5	1	0	0	0	0	0	0	0	0	0	21	16-25	12
8:00 AM	2	5	11	4	1	0	0	0	0	0	0	0	0	0	23	21-30	15
9:00 AM	**4**	8	14	**8**	1	0	0	0	0	0	0	0	0	0	**35**	21-30	22
10:00 AM	3	8	14	6	1	0	0	0	0	0	0	0	0	0	32	18-27	21
11:00 AM	0	8	**20**	7	0	0	0	0	0	0	0	0	0	0	35	16-25	28
12:00 PM	**3**	6	**15**	**10**	1	**2**	0	0	0	0	0	0	0	0	**37**	21-30	25
1:00 PM	0	9	13	4	2	0	0	0	0	0	0	0	0	0	28	16-25	22
2:00 PM	1	**13**	13	7	**3**	0	0	0	0	0	0	0	0	0	37	16-25	26
3:00 PM	0	8	14	7	0	0	0	0	0	0	0	0	0	0	29	20-29	21
4:00 PM	1	4	11	7	0	0	0	0	0	0	0	0	0	0	23	21-30	17
5:00 PM	2	10	9	5	1	0	0	0	0	0	0	0	0	0	27	16-25	19
6:00 PM	2	6	10	3	1	0	0	0	0	0	0	0	0	0	22	16-25	16
7:00 PM	2	3	6	9	0	0	0	0	0	0	0	0	0	0	20	21-30	15
8:00 PM	1	2	2	0	2	0	0	0	0	0	0	0	0	0	7	16-25	4
9:00 PM	1	1	5	2	1	0	0	0	0	0	0	0	0	0	10	21-30	7
10:00 PM	2	0	2	1	0	0	0	0	0	0	0	0	0	0	5	21-30	3
11:00 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	21-30	1
Day Total	30	108	166	92	16	2	0	0	0	0	0	0	0	0	414	16-25	274
Percent	7.2%	26.1%	40.1%	22.2%	3.9%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
414

AM Peak Volume	9:00 AM 4	7:00 AM 11	11:00 AM 20	9:00 AM 8	6:00 AM 1			9:00 AM 35	
PM Peak Volume	12:00 PM 3	2:00 PM 13	12:00 PM 15	12:00 PM 10	2:00 PM 3	12:00 PM 2		12:00 PM 37	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: 52nd Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812527
DIRECTION: NB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	30	108	166	92	16	2	0	0	0	0	0	0	0	0	414	16-25	274
Percent	7.2%	26.1%	40.1%	22.2%	3.9%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	7.2%	33.3%	73.4%	95.7%	99.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
414

85th Percentile 27 MPH

Mean Speed(Average): 21 MPH

Median 22 MPH
Mode: 23 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: 51st Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812526
DIRECTION: SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		1				1			1	
1:00 AM		0				0			0	
2:00 AM		0				0			0	
3:00 AM		1				1			1	
4:00 AM		1				1			1	
5:00 AM		3				3			3	
6:00 AM		6				6			6	
7:00 AM		**21**				**21**			**21**	
8:00 AM		12				12			12	
9:00 AM		16				16			16	
10:00 AM		11				11			11	
11:00 AM		20				20			20	
12:00 PM		24				24			24	
1:00 PM		**26**				**26**			**26**	
2:00 PM		21				21			21	
3:00 PM		21				21			21	
4:00 PM		16				16			16	
5:00 PM		10				10			10	
6:00 PM		13				13			13	
7:00 PM		11				11			11	
8:00 PM		3				3			3	
9:00 PM		8				8			8	
10:00 PM		1				1			1	
11:00 PM		3				3			3	
Day Total		249				249			249	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		7:00 AM 21				7:00 AM 21			7:00 AM 21	
PM Peak Volume		1:00 PM 26				1:00 PM 26			1:00 PM 26	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: 51st Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812526
DIRECTION: SB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16-25	1
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
3:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	11-20	1
4:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16-25	1
5:00 AM	1	0	0	2	0	0	0	0	0	0	0	0	0	0	3	21-30	2
6:00 AM	0	1	2	2	1	0	0	0	0	0	0	0	0	0	6	21-30	4
7:00 AM	0	3	5	**11**	1	**1**	0	0	0	0	0	0	0	0	**21**	22-31	15
8:00 AM	1	2	2	4	**3**	0	0	0	0	0	0	0	0	0	12	27-36	6
9:00 AM	0	2	**7**	4	3	0	0	0	0	0	0	0	0	0	16	21-30	11
10:00 AM	1	**4**	5	0	1	0	0	0	0	0	0	0	0	0	11	16-25	9
11:00 AM	**12**	0	4	3	1	0	0	0	0	0	0	0	0	0	20	6-15	8
12:00 PM	16	0	5	0	3	0	0	0	0	0	0	0	0	0	24	6-15	10
1:00 PM	**25**	0	0	1	0	0	0	0	0	0	0	0	0	0	**26**	6-15	16
2:00 PM	17	1	0	2	0	**1**	0	0	0	0	0	0	0	0	21	6-15	11
3:00 PM	6	**4**	5	1	**5**	0	0	0	0	0	0	0	0	0	21	16-25	9
4:00 PM	1	2	5	**5**	3	0	0	0	0	0	0	0	0	0	16	21-30	10
5:00 PM	0	2	5	2	1	0	0	0	0	0	0	0	0	0	10	21-30	7
6:00 PM	0	4	5	4	0	0	0	0	0	0	0	0	0	0	13	21-30	9
7:00 PM	2	0	**8**	1	0	0	0	0	0	0	0	0	0	0	11	21-30	8
8:00 PM	0	2	0	1	0	0	0	0	0	0	0	0	0	0	3	11-20	2
9:00 PM	0	1	4	2	0	1	0	0	0	0	0	0	0	0	8	21-30	6
10:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16-25	1
11:00 PM	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3	26-35	3
Day Total	82	29	65	47	23	3	0	0	0	0	0	0	0	0	249	21-30	112
Percent	32.9%	11.6%	26.1%	18.9%	9.2%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
249

AM Peak Volume	11:00 AM 12	10:00 AM 4	9:00 AM 7	7:00 AM 11	8:00 AM 3	7:00 AM 1		7:00 AM 21	
PM Peak Volume	1:00 PM 25	3:00 PM 4	7:00 PM 8	4:00 PM 5	3:00 PM 5	2:00 PM 1		1:00 PM 26	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: 51st Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812526
DIRECTION: SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	82	29	65	47	23	3	0	0	0	0	0	0	0	0	249	21-30	112
Percent	32.9%	11.6%	26.1%	18.9%	9.2%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	32.9%	44.6%	70.7%	89.6%	98.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
249

85th Percentile 28 MPH

Mean Speed(Average): 19 MPH

Median 21 MPH
Mode: 8 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: 51st Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812526
DIRECTION: NB/SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		4				4			4	
1:00 AM		1				1			1	
2:00 AM		0				0			0	
3:00 AM		1				1			1	
4:00 AM		1				1			1	
5:00 AM		8				8			8	
6:00 AM		22				22			22	
7:00 AM		**57**				**57**			**57**	
8:00 AM		54				54			54	
9:00 AM		39				39			39	
10:00 AM		31				31			31	
11:00 AM		36				36			36	
12:00 PM		42				42			42	
1:00 PM		40				40			40	
2:00 PM		37				37			37	
3:00 PM		**46**				**46**			**46**	
4:00 PM		41				41			41	
5:00 PM		38				38			38	
6:00 PM		35				35			35	
7:00 PM		23				23			23	
8:00 PM		15				15			15	
9:00 PM		14				14			14	
10:00 PM		5				5			5	
11:00 PM		6				6			6	
Day Total		596				596			596	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		7:00 AM 57				7:00 AM 57			7:00 AM 57	
PM Peak Volume		3:00 PM 46				3:00 PM 46			3:00 PM 46	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: 51st Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812526
DIRECTION: NB/SB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	0	2	2	0	0	0	0	0	0	0	0	0	0	4	21-30	4
1:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	21-30	1
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
3:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	11-20	1
4:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16-25	1
5:00 AM	1	1	1	4	0	**1**	0	0	0	0	0	0	0	0	8	21-30	5
6:00 AM	1	1	12	6	2	0	0	0	0	0	0	0	0	0	22	21-30	18
7:00 AM	0	**6**	**16**	**27**	7	1	0	0	0	0	0	0	0	0	**57**	21-30	43
8:00 AM	4	5	7	26	**11**	1	0	0	0	0	0	0	0	0	54	26-35	37
9:00 AM	1	3	13	14	8	0	0	0	0	0	0	0	0	0	39	21-30	26
10:00 AM	2	4	11	8	5	1	0	0	0	0	0	0	0	0	31	21-30	19
11:00 AM	**13**	3	9	7	4	0	0	0	0	0	0	0	0	0	36	21-30	15
12:00 PM	19	0	8	10	5	0	0	0	0	0	0	0	0	0	42	21-30	18
1:00 PM	**28**	0	2	10	0	0	0	0	0	0	0	0	0	0	40	6-15	18
2:00 PM	18	1	1	12	4	1	0	0	0	0	0	0	0	0	37	26-35	16
3:00 PM	9	7	11	9	**8**	**2**	0	0	0	0	0	0	0	0	**46**	22-31	19
4:00 PM	3	6	11	**16**	5	0	0	0	0	0	0	0	0	0	41	21-30	27
5:00 PM	1	4	**20**	9	4	0	0	0	0	0	0	0	0	0	38	21-30	28
6:00 PM	0	**9**	15	9	1	1	0	0	0	0	0	0	0	0	35	16-25	24
7:00 PM	4	2	12	4	1	0	0	0	0	0	0	0	0	0	23	21-30	16
8:00 PM	0	2	7	6	0	0	0	0	0	0	0	0	0	0	15	21-30	12
9:00 PM	0	1	8	4	0	1	0	0	0	0	0	0	0	0	14	21-30	12
10:00 PM	0	0	4	1	0	0	0	0	0	0	0	0	0	0	5	22-31	4
11:00 PM	0	0	1	4	1	0	0	0	0	0	0	0	0	0	6	21-30	5
Day Total	104	56	172	189	66	9	0	0	0	0	0	0	0	0	596	21-30	360
Percent	17.4%	9.4%	28.9%	31.7%	11.1%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
596

AM Peak Volume	11:00 AM 13	7:00 AM 6	7:00 AM 16	7:00 AM 27	8:00 AM 11	5:00 AM 1		7:00 AM 57	
PM Peak Volume	1:00 PM 28	6:00 PM 9	5:00 PM 20	4:00 PM 16	3:00 PM 8	3:00 PM 2		3:00 PM 46	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: 51st Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812526
DIRECTION: NB/SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	104	56	172	189	66	9	0	0	0	0	0	0	0	0	596	21-30	360
Percent	17.4%	9.4%	28.9%	31.7%	11.1%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	17.4%	26.8%	55.7%	87.4%	98.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
596

85th Percentile 29 MPH

Mean Speed(Average): 22 MPH

Median 24 MPH
Mode: 28 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: 51st Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812526
DIRECTION: NB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		3				3			3	
1:00 AM		1				1			1	
2:00 AM		0				0			0	
3:00 AM		0				0			0	
4:00 AM		0				0			0	
5:00 AM		5				5			5	
6:00 AM		16				16			16	
7:00 AM		36				36			36	
8:00 AM		**42**				**42**			**42**	
9:00 AM		23				23			23	
10:00 AM		20				20			20	
11:00 AM		16				16			16	
12:00 PM		18				18			18	
1:00 PM		14				14			14	
2:00 PM		16				16			16	
3:00 PM		25				25			25	
4:00 PM		25				25			25	
5:00 PM		**28**				**28**			**28**	
6:00 PM		22				22			22	
7:00 PM		12				12			12	
8:00 PM		12				12			12	
9:00 PM		6				6			6	
10:00 PM		4				4			4	
11:00 PM		3				3			3	
Day Total		347				347			347	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		8:00 AM 42				8:00 AM 42			8:00 AM 42	
PM Peak Volume		5:00 PM 28				5:00 PM 28			5:00 PM 28	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: 51st Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812526
DIRECTION: NB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3	21-30	3
1:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	21-30	1
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
5:00 AM	0	1	1	2	0	**1**	0	0	0	0	0	0	0	0	5	21-30	3
6:00 AM	1	0	10	4	1	0	0	0	0	0	0	0	0	0	16	21-30	14
7:00 AM	0	**3**	**11**	16	6	0	0	0	0	0	0	0	0	0	36	21-30	27
8:00 AM	**3**	3	5	**22**	**8**	1	0	0	0	0	0	0	0	0	**42**	26-35	30
9:00 AM	1	1	6	10	5	0	0	0	0	0	0	0	0	0	23	21-30	16
10:00 AM	1	0	6	8	4	1	0	0	0	0	0	0	0	0	20	21-30	14
11:00 AM	1	3	5	4	3	0	0	0	0	0	0	0	0	0	16	21-30	9
12:00 PM	**3**	0	3	10	2	0	0	0	0	0	0	0	0	0	18	21-30	13
1:00 PM	3	0	2	9	0	0	0	0	0	0	0	0	0	0	14	21-30	11
2:00 PM	1	0	1	10	**4**	0	0	0	0	0	0	0	0	0	16	26-35	14
3:00 PM	3	3	6	8	3	**2**	0	0	0	0	0	0	0	0	25	21-30	14
4:00 PM	2	4	6	**11**	2	0	0	0	0	0	0	0	0	0	25	21-30	17
5:00 PM	1	2	**15**	7	3	0	0	0	0	0	0	0	0	0	**28**	21-30	21
6:00 PM	0	**5**	10	5	1	1	0	0	0	0	0	0	0	0	22	16-25	15
7:00 PM	2	2	4	3	1	0	0	0	0	0	0	0	0	0	12	22-31	6
8:00 PM	0	0	7	5	0	0	0	0	0	0	0	0	0	0	12	21-30	12
9:00 PM	0	0	4	2	0	0	0	0	0	0	0	0	0	0	6	21-30	6
10:00 PM	0	0	3	1	0	0	0	0	0	0	0	0	0	0	4	21-30	4
11:00 PM	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3	21-30	3
Day Total	22	27	107	142	43	6	0	0	0	0	0	0	0	0	347	21-30	248
Percent	6.3%	7.8%	30.8%	40.9%	12.4%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
347

AM Peak Volume	8:00 AM 3	7:00 AM 3	7:00 AM 11	8:00 AM 22	8:00 AM 8	5:00 AM 1		8:00 AM 42	
PM Peak Volume	12:00 PM 3	6:00 PM 5	5:00 PM 15	4:00 PM 11	2:00 PM 4	3:00 PM 2		5:00 PM 28	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: 51st Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812526
DIRECTION: NB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	22	27	107	142	43	6	0	0	0	0	0	0	0	0	347	21-30	248
Percent	6.3%	7.8%	30.8%	40.9%	12.4%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	6.3%	14.1%	45.0%	85.9%	98.3%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
347

85th Percentile 29 MPH

Mean Speed(Average): 24 MPH

Median 25 MPH
Mode: 28 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: 50th Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812525
DIRECTION: SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		20				20			20	
1:00 AM		5				5			5	
2:00 AM		3				3			3	
3:00 AM		4				4			4	
4:00 AM		3				3			3	
5:00 AM		12				12			12	
6:00 AM		19				19			19	
7:00 AM		45				45			45	
8:00 AM		38				38			38	
9:00 AM		30				30			30	
10:00 AM		**47**				**47**			**47**	
11:00 AM		45				45			45	
12:00 PM		**71**				**71**			**71**	
1:00 PM		59				59			59	
2:00 PM		58				58			58	
3:00 PM		58				58			58	
4:00 PM		52				52			52	
5:00 PM		47				47			47	
6:00 PM		31				31			31	
7:00 PM		29				29			29	
8:00 PM		17				17			17	
9:00 PM		23				23			23	
10:00 PM		15				15			15	
11:00 PM		29				29			29	
Day Total		760				760			760	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		10:00 AM 47				10:00 AM 47			10:00 AM 47	
PM Peak Volume		12:00 PM 71				12:00 PM 71			12:00 PM 71	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: 50th Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812525
DIRECTION: SB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	1	8	9	2	0	0	0	0	0	0	0	0	0	20	21-30	17
1:00 AM	0	0	1	4	0	0	0	0	0	0	0	0	0	0	5	21-30	5
2:00 AM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3	21-30	3
3:00 AM	0	0	1	2	0	0	**1**	0	0	0	0	0	0	0	4	21-30	3
4:00 AM	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3	21-30	2
5:00 AM	1	1	4	4	2	0	0	0	0	0	0	0	0	0	12	21-30	8
6:00 AM	1	3	4	9	2	0	0	0	0	0	0	0	0	0	19	21-30	13
7:00 AM	2	6	**18**	14	5	0	0	0	0	0	0	0	0	0	45	21-30	31
8:00 AM	**4**	10	16	7	1	0	0	0	0	0	0	0	0	0	38	16-25	26
9:00 AM	3	2	16	7	1	**1**	0	0	0	0	0	0	0	0	30	21-30	22
10:00 AM	3	**11**	18	13	2	0	0	0	0	0	0	0	0	0	**47**	21-30	31
11:00 AM	0	3	14	**19**	**9**	0	0	0	0	0	0	0	0	0	45	21-30	32
12:00 PM	1	6	15	**40**	7	**2**	0	0	0	0	0	0	0	0	**71**	21-30	55
1:00 PM	3	4	20	24	**8**	0	0	0	0	0	0	0	0	0	59	21-30	43
2:00 PM	4	**7**	21	23	3	0	0	0	0	0	0	0	0	0	58	21-30	43
3:00 PM	**9**	5	17	21	6	0	0	0	0	0	0	0	0	0	58	21-30	38
4:00 PM	5	7	21	12	7	0	0	0	0	0	0	0	0	0	52	21-30	33
5:00 PM	1	5	**23**	15	3	0	0	0	0	0	0	0	0	0	47	21-30	38
6:00 PM	3	1	10	15	2	0	0	0	0	0	0	0	0	0	31	21-30	25
7:00 PM	0	7	8	8	6	0	0	0	0	0	0	0	0	0	29	21-30	16
8:00 PM	0	3	8	6	0	0	0	0	0	0	0	0	0	0	17	21-30	13
9:00 PM	0	3	9	7	4	0	0	0	0	0	0	0	0	0	23	21-30	15
10:00 PM	0	0	10	4	1	0	0	0	0	0	0	0	0	0	15	21-30	14
11:00 PM	1	1	10	14	3	0	0	0	0	0	0	0	0	0	29	21-30	23
Day Total	41	87	273	281	74	3	1	0	0	0	0	0	0	0	760	21-30	554
Percent	5.4%	11.4%	35.9%	37.0%	9.7%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
760

AM Peak Volume	8:00 AM 4	10:00 AM 11	7:00 AM 18	11:00 AM 19	11:00 AM 9	9:00 AM 1	3:00 AM 1		10:00 AM 47	
PM Peak Volume	3:00 PM 9	2:00 PM 7	5:00 PM 23	12:00 PM 40	1:00 PM 8	12:00 PM 2			12:00 PM 71	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: 50th Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812525
DIRECTION: SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	41	87	273	281	74	3	1	0	0	0	0	0	0	0	760	21-30	554
Percent	5.4%	11.4%	35.9%	37.0%	9.7%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	5.4%	16.8%	52.8%	89.7%	99.5%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
760

85th Percentile 29 MPH

Mean Speed(Average): 24 MPH

Median 24 MPH
Mode: 28 MPH

Comments:

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Quality Counts
TRANSPORTATION DATA COLLECTION

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DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		22				22			22	
1:00 AM		6				6			6	
2:00 AM		7				7			7	
3:00 AM		6				6			6	
4:00 AM		10				10			10	
5:00 AM		28				28			28	
6:00 AM		51				51			51	
7:00 AM		**92**				**92**			**92**	
8:00 AM		91				91			91	
9:00 AM		73				73			73	
10:00 AM		75				75			75	
11:00 AM		81				81			81	
12:00 PM		119				119			119	
1:00 PM		97				97			97	
2:00 PM		**122**				**122**			**122**	
3:00 PM		94				94			94	
4:00 PM		83				83			83	
5:00 PM		93				93			93	
6:00 PM		72				72			72	
7:00 PM		48				48			48	
8:00 PM		29				29			29	
9:00 PM		32				32			32	
10:00 PM		26				26			26	
11:00 PM		32				32			32	
Day Total		1389				1389			1389	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		7:00 AM 92				7:00 AM 92			7:00 AM 92	
PM Peak Volume		2:00 PM 122				2:00 PM 122			2:00 PM 122	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: 50th Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812525
DIRECTION: NB/SB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	1	8	10	3	0	0	0	0	0	0	0	0	0	22	21-30	18
1:00 AM	0	0	1	4	1	0	0	0	0	0	0	0	0	0	6	21-30	5
2:00 AM	0	0	1	5	1	0	0	0	0	0	0	0	0	0	7	21-30	6
3:00 AM	0	0	2	3	0	0	**1**	0	0	0	0	0	0	0	6	23-32	4
4:00 AM	0	1	2	3	3	**1**	0	0	0	0	0	0	0	0	10	28-37	5
5:00 AM	2	1	8	12	5	0	0	0	0	0	0	0	0	0	28	22-31	19
6:00 AM	**7**	9	13	17	4	1	0	0	0	0	0	0	0	0	51	21-30	29
7:00 AM	4	9	33	**34**	11	1	0	0	0	0	0	0	0	0	**92**	21-30	67
8:00 AM	6	**17**	**39**	25	4	0	0	0	0	0	0	0	0	0	91	21-30	64
9:00 AM	5	7	29	29	2	1	0	0	0	0	0	0	0	0	73	21-30	57
10:00 AM	5	13	25	28	3	1	0	0	0	0	0	0	0	0	75	21-30	52
11:00 AM	4	8	26	29	**13**	1	0	0	0	0	0	0	0	0	81	21-30	54
12:00 PM	2	13	32	**55**	13	**4**	0	0	0	0	0	0	0	0	119	21-30	87
1:00 PM	3	8	28	42	**14**	2	0	0	0	0	0	0	0	0	97	21-30	70
2:00 PM	6	**18**	**48**	43	5	2	0	0	0	0	0	0	0	0	**122**	21-30	90
3:00 PM	**13**	6	27	38	10	0	0	0	0	0	0	0	0	0	94	21-30	64
4:00 PM	8	10	34	20	11	0	0	0	0	0	0	0	0	0	83	21-30	54
5:00 PM	2	10	43	30	8	0	0	0	0	0	0	0	0	0	93	21-30	73
6:00 PM	3	8	26	30	4	0	**1**	0	0	0	0	0	0	0	72	21-30	56
7:00 PM	0	11	11	17	9	0	0	0	0	0	0	0	0	0	48	23-32	27
8:00 PM	0	6	13	10	0	0	0	0	0	0	0	0	0	0	29	21-30	23
9:00 PM	0	5	14	9	4	0	0	0	0	0	0	0	0	0	32	21-30	22
10:00 PM	0	0	15	10	1	0	0	0	0	0	0	0	0	0	26	21-30	25
11:00 PM	1	1	12	15	3	0	0	0	0	0	0	0	0	0	32	21-30	27
Day Total	71	162	490	518	132	14	2	0	0	0	0	0	0	0	1389	21-30	1007
Percent	5.1%	11.7%	35.3%	37.3%	9.5%	1.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
1389

AM Peak Volume	6:00 AM 7	8:00 AM 17	8:00 AM 39	7:00 AM 34	11:00 AM 13	4:00 AM 1	3:00 AM 1		7:00 AM 92	
PM Peak Volume	3:00 PM 13	2:00 PM 18	2:00 PM 48	12:00 PM 55	1:00 PM 14	12:00 PM 4	6:00 PM 1		2:00 PM 122	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: 50th Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812525
DIRECTION: NB/SB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	71	162	490	518	132	14	2	0	0	0	0	0	0	0	1389	21-30	1007
Percent	5.1%	11.7%	35.3%	37.3%	9.5%	1.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	5.1%	16.8%	52.1%	89.3%	98.8%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
1389

85th Percentile 29 MPH

Mean Speed(Average): 24 MPH

Median 24 MPH
Mode: 28 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Type of report: Tube Count - Volume Data

LOCATION: 50th Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812525
DIRECTION: NB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	Mon	Tue 06-Nov-12	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		2				2			2	
1:00 AM		1				1			1	
2:00 AM		4				4			4	
3:00 AM		2				2			2	
4:00 AM		7				7			7	
5:00 AM		16				16			16	
6:00 AM		32				32			32	
7:00 AM		47				47			47	
8:00 AM		**53**				**53**			**53**	
9:00 AM		43				43			43	
10:00 AM		28				28			28	
11:00 AM		36				36			36	
12:00 PM		48				48			48	
1:00 PM		38				38			38	
2:00 PM		**64**				**64**			**64**	
3:00 PM		36				36			36	
4:00 PM		31				31			31	
5:00 PM		46				46			46	
6:00 PM		41				41			41	
7:00 PM		19				19			19	
8:00 PM		12				12			12	
9:00 PM		9				9			9	
10:00 PM		11				11			11	
11:00 PM		3				3			3	
Day Total		629				629			629	
% Weekday Average		100.0%								
% Week Average		100.0%				100.0%				
AM Peak Volume		8:00 AM 53				8:00 AM 53			8:00 AM 53	
PM Peak Volume		2:00 PM 64				2:00 PM 64			2:00 PM 64	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

LOCATION: 50th Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812525
DIRECTION: NB
DATE: Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	26-35	2
1:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	26-35	1
2:00 AM	0	0	1	2	1	0	0	0	0	0	0	0	0	0	4	26-35	3
3:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	21-30	2
4:00 AM	0	0	1	2	3	**1**	0	0	0	0	0	0	0	0	7	30-39	4
5:00 AM	1	0	4	8	3	0	0	0	0	0	0	0	0	0	16	21-30	12
6:00 AM	**6**	6	9	8	2	1	0	0	0	0	0	0	0	0	32	21-30	17
7:00 AM	2	3	15	20	**6**	1	0	0	0	0	0	0	0	0	47	21-30	35
8:00 AM	2	**7**	**23**	18	3	0	0	0	0	0	0	0	0	0	**53**	21-30	40
9:00 AM	2	5	13	**22**	1	0	0	0	0	0	0	0	0	0	43	21-30	35
10:00 AM	2	2	7	15	1	1	0	0	0	0	0	0	0	0	28	21-30	22
11:00 AM	4	5	12	10	4	1	0	0	0	0	0	0	0	0	36	21-30	22
12:00 PM	1	7	17	15	**6**	**2**	0	0	0	0	0	0	0	0	48	21-30	32
1:00 PM	0	4	8	18	6	2	0	0	0	0	0	0	0	0	38	21-30	26
2:00 PM	2	**11**	**27**	**20**	2	2	0	0	0	0	0	0	0	0	**64**	21-30	47
3:00 PM	**4**	1	10	17	4	0	0	0	0	0	0	0	0	0	36	21-30	26
4:00 PM	3	3	13	8	4	0	0	0	0	0	0	0	0	0	31	21-30	21
5:00 PM	1	5	20	15	5	0	0	0	0	0	0	0	0	0	46	21-30	35
6:00 PM	0	7	16	15	2	0	**1**	0	0	0	0	0	0	0	41	21-30	31
7:00 PM	0	4	3	9	3	0	0	0	0	0	0	0	0	0	19	26-35	12
8:00 PM	0	3	5	4	0	0	0	0	0	0	0	0	0	0	12	21-30	9
9:00 PM	0	2	5	2	0	0	0	0	0	0	0	0	0	0	9	21-30	7
10:00 PM	0	0	5	6	0	0	0	0	0	0	0	0	0	0	11	21-30	10
11:00 PM	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3	21-30	3
Day Total	30	75	217	237	58	11	1	0	0	0	0	0	0	0	629	21-30	453
Percent	4.8%	11.9%	34.5%	37.7%	9.2%	1.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

ADT
629

AM Peak Volume	6:00 AM 6	8:00 AM 7	8:00 AM 23	9:00 AM 22	7:00 AM 6	4:00 AM 1			8:00 AM 53	
PM Peak Volume	3:00 PM 4	2:00 PM 11	2:00 PM 27	2:00 PM 20	12:00 PM 6	12:00 PM 2	6:00 PM 1		2:00 PM 64	

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Speed Data

SUMMARY - Tube Count - Speed Data

LOCATION: 50th Street between F Street and H Street
SPECIFIC LOCATION: 100 ft from
CITY/STATE: Sacramento, CA

QC JOB #: 10812525
DIRECTION: NB
DATE: Nov 06 2012 - Nov 06 2012

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	30	75	217	237	58	11	1	0	0	0	0	0	0	0	629	21-30	453
Percent	4.8%	11.9%	34.5%	37.7%	9.2%	1.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Cumulative Percent	4.8%	16.7%	51.2%	88.9%	98.1%	99.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			

ADT
629

85th Percentile 29 MPH

Mean Speed(Average): 24 MPH

Median 24 MPH
Mode: 28 MPH

Comments:

Report generated on 11/20/2012 1:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION

Appendix 2 Existing Conditions LOS Worksheets

HCM Unsignalized Intersection Capacity Analysis
1: 50th St & F St

AM Peak
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	3	48	4	8	21	16	0	28	21	26	28	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	3	48	4	8	21	16	0	28	21	26	28	2

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	55	45	49	56
Volume Left (vph)	3	8	0	26
Volume Right (vph)	4	16	21	2
Hadj (s)	-0.03	-0.06	-0.22	0.17
Departure Headway (s)	4.1	4.1	4.0	4.3
Degree Utilization, x	0.06	0.05	0.05	0.07
Capacity (veh/h)	842	846	875	808
Control Delay (s)	7.4	7.3	7.2	7.6
Approach Delay (s)	7.4	7.3	7.2	7.6
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.4		
Level of Service	A		
Intersection Capacity Utilization	22.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
2: 51st St & F St

AM Peak
3/22/2013

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	91	7	14	40	5	42
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	91	7	14	40	5	42
Pedestrians				3	2	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				4.0	4.0	
Percent Blockage				0	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			100		164	100
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			100		164	100
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		99	96
cM capacity (veh/h)			1503		822	952

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	98	54	47
Volume Left	0	14	5
Volume Right	7	0	42
cSH	1700	1503	936
Volume to Capacity	0.06	0.01	0.05
Queue Length 95th (ft)	0	1	4
Control Delay (s)	0.0	2.0	9.0
Lane LOS		A	A
Approach Delay (s)	0.0	2.0	9.0
Approach LOS			A

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	20.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: 53rd St & F St

AM Peak
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	58	47	24	18	42	105	14	74	12	18	46	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	58	47	24	18	42	105	14	74	12	18	46	5

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	129	165	100	69
Volume Left (vph)	58	18	14	18
Volume Right (vph)	24	105	12	5
Hadj (s)	0.02	-0.34	-0.04	0.01
Departure Headway (s)	4.5	4.1	4.6	4.7
Degree Utilization, x	0.16	0.19	0.13	0.09
Capacity (veh/h)	763	825	730	708
Control Delay (s)	8.4	8.1	8.3	8.2
Approach Delay (s)	8.4	8.1	8.3	8.2
Approach LOS	A	A	A	A

Intersection Summary			
Delay	8.2		
Level of Service	A		
Intersection Capacity Utilization	34.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
4: Elvas Ave & F St

AM Peak
3/22/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	4	75	138	357	362	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	4	75	138	357	362	11
Pedestrians	5					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	827	192	378			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	827	192	378			
tC, single (s)	6.8	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	91	88			
cM capacity (veh/h)	276	805	1165			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	79	257	238	241	132
Volume Left	4	138	0	0	0
Volume Right	75	0	0	0	11
cSH	734	1165	1700	1700	1700
Volume to Capacity	0.11	0.12	0.14	0.14	0.08
Queue Length 95th (ft)	9	10	0	0	0
Control Delay (s)	10.5	5.1	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	10.5	2.6		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	39.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
5: 50th St & H St

AM Peak
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	34	544	6	7	613	10	3	0	10	9	6	31
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	34	544	6	7	613	10	3	0	10	9	6	31
Pedestrians		1			1			6			12	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		0			0			1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					1182							
pX, platoon unblocked												
vC, conflicting volume	635			556			1288	1270	554	1270	1268	631
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	635			556			1288	1270	554	1270	1268	631
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			99			98	100	98	93	96	94
cM capacity (veh/h)	934			952			123	160	533	136	160	479

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	584	630	13	46
Volume Left	34	7	3	9
Volume Right	6	10	10	31
cSH	934	952	301	273
Volume to Capacity	0.04	0.01	0.04	0.17
Queue Length 95th (ft)	3	1	3	15
Control Delay (s)	1.0	0.2	17.5	20.8
Lane LOS	A	A	C	C
Approach Delay (s)	1.0	0.2	17.5	20.8
Approach LOS			C	C

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: 51st St & H St

AM Peak
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	31	512	16	25	604	4	18	10	27	7	7	13
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	31	512	16	25	604	4	18	10	27	7	7	13
Pedestrians								4			9	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								4.0			4.0	
Percent Blockage								0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					889							
pX, platoon unblocked												
vC, conflicting volume	617			532			1258	1253	524	1279	1259	615
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	617			532			1258	1253	524	1279	1259	615
tC, single (s)	4.1			4.1			7.2	6.6	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.1	3.4	3.5	4.0	3.3
p0 queue free %	97			98			86	94	95	94	96	97
cM capacity (veh/h)	965			1042			126	155	542	123	161	491

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	559	633	55	27
Volume Left	31	25	18	7
Volume Right	16	4	27	13
cSH	965	1042	214	213
Volume to Capacity	0.03	0.02	0.26	0.13
Queue Length 95th (ft)	2	2	25	11
Control Delay (s)	0.9	0.6	27.6	24.4
Lane LOS	A	A	D	C
Approach Delay (s)	0.9	0.6	27.6	24.4
Approach LOS			D	C

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	51.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
7: 53rd St & H St

AM Peak
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	47	435	11	11	490	31	9	25	16	13	11	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			3.5			3.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.96			0.93	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		1848			1846			1766			1714	
Flt Permitted		0.93			0.99			0.93			0.89	
Satd. Flow (perm)		1732			1832			1659			1554	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	47	435	11	11	490	31	9	25	16	13	11	24
RTOR Reduction (vph)	0	1	0	0	2	0	0	14	0	0	21	0
Lane Group Flow (vph)	0	492	0	0	530	0	0	36	0	0	27	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)		33.0			33.0			4.8			4.8	
Effective Green, g (s)		33.0			33.0			4.8			4.8	
Actuated g/C Ratio		0.73			0.73			0.11			0.11	
Clearance Time (s)		4.0			4.0			3.5			3.5	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1261			1334			175			164	
v/s Ratio Prot												
v/s Ratio Perm		0.28			c0.29			c0.02			0.02	
v/c Ratio		0.39			0.40			0.20			0.16	
Uniform Delay, d1		2.3			2.3			18.5			18.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.3			0.3			0.8			0.6	
Delay (s)		2.6			2.6			19.3			19.1	
Level of Service		A			A			B			B	
Approach Delay (s)		2.6			2.6			19.3			19.1	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	4.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	45.3	Sum of lost time (s)	7.5
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
8: Coloma Way & D St

AM Peak
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	2	23	29	1	10	0	9	13	1	2	20	11
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	2	23	29	1	10	0	9	13	1	2	20	11

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	54	11	23	33
Volume Left (vph)	2	1	9	2
Volume Right (vph)	29	0	1	11
Hadj (s)	-0.31	0.17	0.05	-0.19
Departure Headway (s)	3.7	4.2	4.1	3.9
Degree Utilization, x	0.06	0.01	0.03	0.04
Capacity (veh/h)	949	832	849	910
Control Delay (s)	6.9	7.3	7.2	7.0
Approach Delay (s)	6.9	7.3	7.2	7.0
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.0		
Level of Service	A		
Intersection Capacity Utilization	17.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
10: Elvas Ave & C St

AM Peak
3/22/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	6	58	24	348	307	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	58	24	348	307	2
Pedestrians	7					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	711	315	316			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	711	315	316			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	92	98			
cM capacity (veh/h)	392	726	1248			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	64	372	309
Volume Left	6	24	0
Volume Right	58	0	2
cSH	672	1248	1700
Volume to Capacity	0.10	0.02	0.18
Queue Length 95th (ft)	8	1	0
Control Delay (s)	10.9	0.7	0.0
Lane LOS	B	A	
Approach Delay (s)	10.9	0.7	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
11: Coloma Way/50th St & E St

AM Peak
3/22/2013

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	26	11	12	34	16	38
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	26	11	12	34	16	38
Pedestrians	8					1
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	4.0					4.0
Percent Blockage	1					0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	107	38			54	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	107	38			54	
tC, single (s)	6.5	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	97	99			99	
cM capacity (veh/h)	861	1032			1554	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	37	46	54
Volume Left	26	0	16
Volume Right	11	34	0
cSH	906	1700	1554
Volume to Capacity	0.04	0.03	0.01
Queue Length 95th (ft)	3	0	1
Control Delay (s)	9.1	0.0	2.2
Lane LOS	A		A
Approach Delay (s)	9.1	0.0	2.2
Approach LOS	A		

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	19.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
12: F St & W Hospital Dwy

AM Peak
3/22/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	23	112	54	16	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	23	112	54	16	0	0
Pedestrians		7			16	
Lane Width (ft)		12.0			0.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		1			0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	86				236	85
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	86				236	85
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				100	100
cM capacity (veh/h)	1523				745	974

Direction, Lane #	EB 1	WB 1
Volume Total	135	70
Volume Left	23	0
Volume Right	0	16
cSH	1523	1700
Volume to Capacity	0.02	0.04
Queue Length 95th (ft)	1	0
Control Delay (s)	1.4	0.0
Lane LOS	A	
Approach Delay (s)	1.4	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	25.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
13: F St & E Hospital Dwy

AM Peak
3/22/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	4	137	55	3	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	4	137	55	3	0	0
Pedestrians			1		8	
Lane Width (ft)			12.0		0.0	
Walking Speed (ft/s)			4.0		4.0	
Percent Blockage			0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	66				210	64
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	66				210	64
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1549				780	1005

Direction, Lane #	EB 1	WB 1
Volume Total	141	58
Volume Left	4	0
Volume Right	0	3
cSH	1549	1700
Volume to Capacity	0.00	0.03
Queue Length 95th (ft)	0	0
Control Delay (s)	0.2	0.0
Lane LOS	A	
Approach Delay (s)	0.2	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	13.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
14: F St & Middle Hospital Dwy

AM Peak
3/22/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	22	113	48	9	25	27
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	22	113	48	9	25	27
Pedestrians		1			10	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		0			1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	67				220	64
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	67				220	64
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				97	97
cM capacity (veh/h)	1535				747	986

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	135	57	52
Volume Left	22	0	25
Volume Right	0	9	27
cSH	1535	1700	855
Volume to Capacity	0.01	0.03	0.06
Queue Length 95th (ft)	1	0	5
Control Delay (s)	1.3	0.0	9.5
Lane LOS	A		A
Approach Delay (s)	1.3	0.0	9.5
Approach LOS			A

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	24.2%	ICU Level of Service	A
Analysis Period (min)	15		

9: 51st St & C St Performance by movement

Movement	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	3.3	5.2	0.1	0.1	0.6	1.4	1.5	3.9	4.8	2.6

HCM Unsignalized Intersection Capacity Analysis
1: 50th St & F St

Existing PM Peak
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	26	0	14	39	17	1	42	5	19	37	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	26	0	14	39	17	1	42	5	19	37	2

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	26	70	48	58
Volume Left (vph)	0	14	1	19
Volume Right (vph)	0	17	5	2
Hadj (s)	0.00	-0.08	-0.03	0.07
Departure Headway (s)	4.2	4.1	4.1	4.2
Degree Utilization, x	0.03	0.08	0.06	0.07
Capacity (veh/h)	828	856	838	827
Control Delay (s)	7.3	7.4	7.4	7.5
Approach Delay (s)	7.3	7.4	7.4	7.5
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.4		
Level of Service	A		
Intersection Capacity Utilization	27.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
2: 51st St & F St

Existing PM Peak
3/22/2013

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	50	3	11	59	11	16
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	50	3	11	59	11	16
Pedestrians	2			1	10	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	0			0	1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			63		144	62
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			63		144	62
tC, single (s)			4.1		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.4
p0 queue free %			99		99	98
cM capacity (veh/h)			1540		838	982

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	53	70	27
Volume Left	0	11	11
Volume Right	3	0	16
cSH	1700	1540	918
Volume to Capacity	0.03	0.01	0.03
Queue Length 95th (ft)	0	1	2
Control Delay (s)	0.0	1.2	9.0
Lane LOS		A	A
Approach Delay (s)	0.0	1.2	9.0
Approach LOS			A

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	20.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: 53rd St & F St

Existing PM Peak
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	14	38	21	28	40	13	15	40	13	54	103	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	14	38	21	28	40	13	15	40	13	54	103	25

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	73	81	68	182
Volume Left (vph)	14	28	15	54
Volume Right (vph)	21	13	13	25
Hadj (s)	-0.11	0.01	-0.05	-0.01
Departure Headway (s)	4.5	4.6	4.4	4.3
Degree Utilization, x	0.09	0.10	0.08	0.22
Capacity (veh/h)	749	734	772	793
Control Delay (s)	7.9	8.1	7.8	8.5
Approach Delay (s)	7.9	8.1	7.8	8.5
Approach LOS	A	A	A	A

Intersection Summary			
Delay	8.2		
Level of Service	A		
Intersection Capacity Utilization	31.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
4: Elvas Ave & F St

Existing PM Peak
3/22/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	6	122	73	398	401	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	122	73	398	401	4
Pedestrians	7				1	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	4.0				4.0	
Percent Blockage	1				0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	756	210	412			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	756	210	412			
tC, single (s)	6.8	6.9	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	85	93			
cM capacity (veh/h)	323	792	1116			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	128	206	265	267	138
Volume Left	6	73	0	0	0
Volume Right	122	0	0	0	4
cSH	741	1116	1700	1700	1700
Volume to Capacity	0.17	0.07	0.16	0.16	0.08
Queue Length 95th (ft)	16	5	0	0	0
Control Delay (s)	10.9	3.4	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	10.9	1.5		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
5: 50th St & H St

Existing PM Peak
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	25	600	11	10	605	26	3	3	6	16	4	27
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	25	600	11	10	605	26	3	3	6	16	4	27
Pedestrians					2			8			20	
Lane Width (ft)					12.0			12.0			12.0	
Walking Speed (ft/s)					4.0			4.0			4.0	
Percent Blockage					0			1			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					1182							
pX, platoon unblocked												
vC, conflicting volume	651			619			1330	1334	616	1323	1327	638
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	651			619			1330	1334	616	1323	1327	638
tC, single (s)	4.1			4.1			7.1	6.5	6.4	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.5	3.5	4.0	3.3
p0 queue free %	97			99			97	98	99	87	97	94
cM capacity (veh/h)	929			965			116	146	461	123	147	472

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	636	641	12	47
Volume Left	25	10	3	16
Volume Right	11	26	6	27
cSH	929	965	202	219
Volume to Capacity	0.03	0.01	0.06	0.21
Queue Length 95th (ft)	2	1	5	20
Control Delay (s)	0.7	0.3	23.9	25.9
Lane LOS	A	A	C	D
Approach Delay (s)	0.7	0.3	23.9	25.9
Approach LOS			C	D

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	57.1%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: 51st St & H St

Existing PM Peak
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	585	21	22	601	9	20	11	43	2	2	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	13	585	21	22	601	9	20	11	43	2	2	7
Pedestrians								11			23	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								4.0			4.0	
Percent Blockage								1			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					889							
pX, platoon unblocked												
vC, conflicting volume	633			617			1290	1310	606	1342	1316	628
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	633			617			1290	1310	606	1342	1316	628
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			98			85	93	91	98	99	99
cM capacity (veh/h)	904			964			130	150	496	105	149	477

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	619	632	74	11
Volume Left	13	22	20	2
Volume Right	21	9	43	7
cSH	904	964	236	233
Volume to Capacity	0.01	0.02	0.31	0.05
Queue Length 95th (ft)	1	2	32	4
Control Delay (s)	0.4	0.6	27.1	21.2
Lane LOS	A	A	D	C
Approach Delay (s)	0.4	0.6	27.1	21.2
Approach LOS			D	C

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
7: 53rd St & H St

Existing PM Peak
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	572	6	9	485	22	36	36	72	30	21	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			3.5			3.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.93			0.92	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		1857			1850			1716			1693	
Flt Permitted		0.98			0.99			0.93			0.93	
Satd. Flow (perm)		1816			1836			1611			1595	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	24	572	6	9	485	22	36	36	72	30	21	75
RTOR Reduction (vph)	0	1	0	0	2	0	0	60	0	0	62	0
Lane Group Flow (vph)	0	601	0	0	514	0	0	84	0	0	64	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)		31.6			31.6			7.9			7.9	
Effective Green, g (s)		31.6			31.6			7.9			7.9	
Actuated g/C Ratio		0.67			0.67			0.17			0.17	
Clearance Time (s)		4.0			4.0			3.5			3.5	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1220			1234			270			268	
v/s Ratio Prot												
v/s Ratio Perm		c0.33			0.28			c0.05			0.04	
v/c Ratio		0.49			0.42			0.31			0.24	
Uniform Delay, d1		3.8			3.5			17.2			16.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.4			0.3			0.9			0.6	
Delay (s)		4.2			3.8			18.1			17.6	
Level of Service		A			A			B			B	
Approach Delay (s)		4.2			3.8			18.1			17.6	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	6.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	47.0	Sum of lost time (s)	7.5
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
8: Coloma Way & D St

Existing PM Peak
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	6	24	10	2	20	2	20	29	1	2	16	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	24	10	2	20	2	20	29	1	2	16	10

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	40	24	50	28
Volume Left (vph)	6	2	20	2
Volume Right (vph)	10	2	1	10
Hadj (s)	-0.08	0.18	0.07	0.04
Departure Headway (s)	4.0	4.3	4.1	4.1
Degree Utilization, x	0.04	0.03	0.06	0.03
Capacity (veh/h)	873	819	846	852
Control Delay (s)	7.2	7.4	7.4	7.3
Approach Delay (s)	7.2	7.4	7.4	7.3
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.3		
Level of Service	A		
Intersection Capacity Utilization	20.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
10: Elvas Ave & C St

Existing PM Peak
3/22/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	1	42	48	333	347	6
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1	42	48	333	347	6
Pedestrians	7					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	786	357	360			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	786	357	360			
tC, single (s)	6.4	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.2			
p0 queue free %	100	94	96			
cM capacity (veh/h)	347	672	1203			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	43	381	353
Volume Left	1	48	0
Volume Right	42	0	6
cSH	658	1203	1700
Volume to Capacity	0.07	0.04	0.21
Queue Length 95th (ft)	5	3	0
Control Delay (s)	10.9	1.4	0.0
Lane LOS	B	A	
Approach Delay (s)	10.9	1.4	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	52.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
11: Coloma Way/50th St & E St

Existing PM Peak
3/22/2013

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	29	10	55	9	2	27
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	29	10	55	9	2	27
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	92	60			65	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	92	60			65	
tC, single (s)	6.4	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	97	99			100	
cM capacity (veh/h)	912	982			1549	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	39	64	29
Volume Left	29	0	2
Volume Right	10	9	0
cSH	929	1700	1549
Volume to Capacity	0.04	0.04	0.00
Queue Length 95th (ft)	3	0	0
Control Delay (s)	9.0	0.0	0.5
Lane LOS	A		A
Approach Delay (s)	9.0	0.0	0.5
Approach LOS	A		

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	13.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
12: F St & W Hospital Dwy

Existing PM Peak
3/22/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	3	62	69	4	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	3	62	69	4	0	0
Pedestrians		2	2		21	
Lane Width (ft)		12.0	12.0		0.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	94				162	94
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	94				162	94
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1513				830	967

Direction, Lane #	EB 1	WB 1
Volume Total	65	73
Volume Left	3	0
Volume Right	0	4
cSH	1513	1700
Volume to Capacity	0.00	0.04
Queue Length 95th (ft)	0	0
Control Delay (s)	0.4	0.0
Lane LOS	A	
Approach Delay (s)	0.4	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	19.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
13: F St & E Hospital Dwy

Existing PM Peak
3/22/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	78	78	0	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	78	78	0	0	0
Pedestrians					23	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	101				179	101
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	101				179	101
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1504				815	960

Direction, Lane #	EB 1	WB 1
Volume Total	78	78
Volume Left	0	0
Volume Right	0	0
cSH	1504	1700
Volume to Capacity	0.00	0.05
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	12.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
14: F St & Middle Hospital Dwy

Existing PM Peak
3/22/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	13	55	65	9	20	22
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	13	55	65	9	20	22
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	78				154	74
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	78				154	74
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				98	98
cM capacity (veh/h)	1528				820	977

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	68	74	42
Volume Left	13	0	20
Volume Right	0	9	22
cSH	1528	1700	895
Volume to Capacity	0.01	0.04	0.05
Queue Length 95th (ft)	1	0	4
Control Delay (s)	1.5	0.0	9.2
Lane LOS	A		A
Approach Delay (s)	1.5	0.0	9.2
Approach LOS			A

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	20.3%	ICU Level of Service	A
Analysis Period (min)	15		

9: 51st St & C St Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0
Total Del/Veh (s)	5.1	2.6	0.2	0.2	0.3	1.3	1.1	4.1	4.6	1.9	1.9

Appendix 3 Trip Generation Supplement Information

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING / PLANNING
428 J Street, Suite 500, Sacramento, CA 95814 P 916.266.2190 F 916.266.2195

MEMORANDUM

Date: April 1, 2013

Project #: 156040.104

To: Aelita Milatzo
City of Sacramento

From: Chirag Safi, (916) 822-5356

Project: Sutter Park Neighborhood

Subject: Trip Generation

The purpose of this memorandum is to summarize trip generation estimates for the proposed Sutter Park neighborhood development. Based on the land use information provided by the City and traffic counts, trips for both existing hospital and proposed development were estimated. **Table 1** presents the preliminary trip generation numbers. **Attachment 1** contains internal trips worksheets.

In 2011, 24-hour traffic counts were taken at all of the entrances and exits to the hospital for the *Sutter Memorial Existing Conditions Transportation & Traffic* report prepared by Fehr & Peers in June 2011. Given the hospital driveways share access with the F Street/53rd Street medical office building and E Street single family houses, daily and peak hour vehicular trips associated with these two developments would be discounted from the raw driveway counts. According to the Fehr & Peers study, the hospital generates 6,270 net daily trips.

Based on the peak hour traffic counts collected in November 2012, the Sutter hospital currently generates 448 and 346 net trips during the AM and PM peak hours respectively. The peak hour counts for the F Street/53rd Street medical office building were discounted. Since it was not easy to distinguish trips for hospital and E street residential units, the regression equations for the Land Use (LU) 210 Single Family Detached Housing as contained the Institute Transportation Engineers (ITE) Trip Generation Manual (9th Edition).

For the proposed development, the ITE Trip Generation regression equations for the LU 210 and LU 820 (Shopping Center) were used to estimate peak hour and daily trips. In order to capture internal trips between the proposed shopping center and residential units, the methodology provided in the ITE Trip Generation Manual was applied. The net new trips generated by the proposed project would 2,065, 122 and 191 during the daily, AM peak and PM peak respectively.

Taking difference between trips currently being generated by the Sutter Hospital and trips to be generated by the proposed development, net trips as a result of the proposed project would be reduced by 4,025 daily, 326 during the AM peak and 154 during the PM peak hour.

Table 1. Trip Generation for the Proposed Sutter Park Neighborhood Project

Land Use	ITE Code	Size (DU or SF)	Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour		
				Total	In	Out	Total	In	Out
Existing Sutter Hospital									
Hospital Trips	Dwy Counts+		6,270	522	364	158	370	107	263
E Street SFDU Reduction [1]	210	6	--	-14	-3	-11	-8	-5	-3
F&53rd Medical Office Building Reduction	Dwy Counts++		--	-60	-58	-2	-16	-4	-12
Net Trips for Existing Sutter Hospital			***6,270***	***448***	***303***	***145***	***346***	***98***	***248***
Proposed Sutter Park Development									
Single-Family Detached Housing [1]	210	125	1,290	97	24	73	128	81	48
Shopping Center [1]	820	5,000	969	25	15	10	81	39	42
Internal Trips Reduction [1]			*-194*	*0*	*0*	*0*	*-18*	*-9*	*-9*
Net New Trips for Proposed Development			2,065	122	40	82	191	111	81
Net Trip Difference between Proposed Development and Existing Hospital			***-4,205***	***-326***	***-263***	***-63***	***-154***	***13***	***-167***

Notes:

+ Sum of driveway traffic counts. E Street and F&53rd Medical Office building reductions were accounted for daily trips

++ Sum of driveway traffic counts for AM and PM peak hours. Daily traffic was based on ITE Trip Manual, 9th Edition Land Use Code 720

1 Based on the ITE Trip Generation Manual, 9th Edition

Negative trips indicate reduction in traffic volumes

Attachment 1

Internal Capture Calculations

Analyst	CBS
Project	Sutter Park, Sacramento
Date	March 12, 2013
Time Period	DAILY

LAND USE A	RESIDENTIAL		
ITE LU Code	210		
Size	125 DU		
	Total	*Internal*	*External*
Enter	645	53	592
Exit	645	44	601
Total	1,290	97	1,193
%	100%	8%	92%

Exit to External: 601

Enter from External: 592

38% | 245 — Demand

44 — Balanced

9% | 44 — Demand

33% | 213 — Demand

53 — Balanced

11% | 53 — Demand

0% | 0 — Demand

0 — Balanced

N/A | N/A — Demand

0% | 0 — Demand

0 — Balanced

0% | 0 — Demand

LAND USE B	RETAIL		
ITE LU Code	820		
Size	5 ksf		
	Total	Internal	External
Enter	485	44	441
Exit	485	53	432
Total	970	97	873
%	100%	10%	90%

Exit to External: 432

Enter from External: 441

0% | 0 — Demand

0 — Balanced

0% | 0 — Demand

0% | 0 — Demand

0 — Balanced

0% | 0 — Demand

LAND USE C	OFFICE		
ITE LU Code			
Size			
	Total	Internal	External
Enter		0	
Exit		0	
Total			
%			

Enter to External:

Exit from External:

NET EXTERNAL TRIPS FOR MULTI-USE DEVELOPMENT					
	LAND USE A	**LAND USE B**	**LAND USE C**	**TOTAL**	
Enter	592	441		1,033	
Exit	601	432		1,033	
Total	1,193	873		2,066	INTERNAL CAPTURE
Single-Use Trip Gen Est.	1,290	970		2,260	9%

Analyst	CBS
Project	Sutter Park, Sacramento
Date	March 12, 2013
Time Period	P.M. PEAK HOUR OF ADJACENT STREET TRAFFIC

LAND USE A	RESIDENTIAL		
ITE LU Code	210		
Size	125 DU		
	Total	*Internal*	*External*
Enter	81	5	76
Exit	48	4	44
Total	129	9	120
%	100%	7%	93%

Exit to External: 44

Enter from External: 76

53% | 25 — Demand

4 — Balanced

9% | 4 — Demand

31% | 25 — Demand

5 — Balanced

12% | 5 — Demand

N/A | N/A — Demand

0 — Balanced

N/A | N/A — Demand

0% | 0 — Demand

0 — Balanced

0% | 0 — Demand

LAND USE B	RETAIL		
ITE LU Code	820		
Size	5 ksf		
	Total	Internal	External
Enter	39	4	35
Exit	42	5	37
Total	81	9	72
%	100%	11%	89%

Exit to External: 37

Enter from External: 35

0% | 0 — Demand

0 — Balanced

0% | 0 — Demand

0% | 0 — Demand

0 — Balanced

0% | 0 — Demand

LAND USE C	OFFICE		
ITE LU Code			
Size			
	Total	Internal	External
Enter		0	
Exit		0	
Total			
%			

Enter to External:

Exit from External:

NET EXTERNAL TRIPS FOR MULTI-USE DEVELOPMENT					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	76	35		111	
Exit	44	37		81	
Total	120	72		192	INTERNAL CAPTURE
Single-Use Trip Gen Est.	129	81		210	9%

Appendix 4 Trip Distribution Model Outputs

Bi-Directional PM Percentages
Residential Zone Selected
Existing Year

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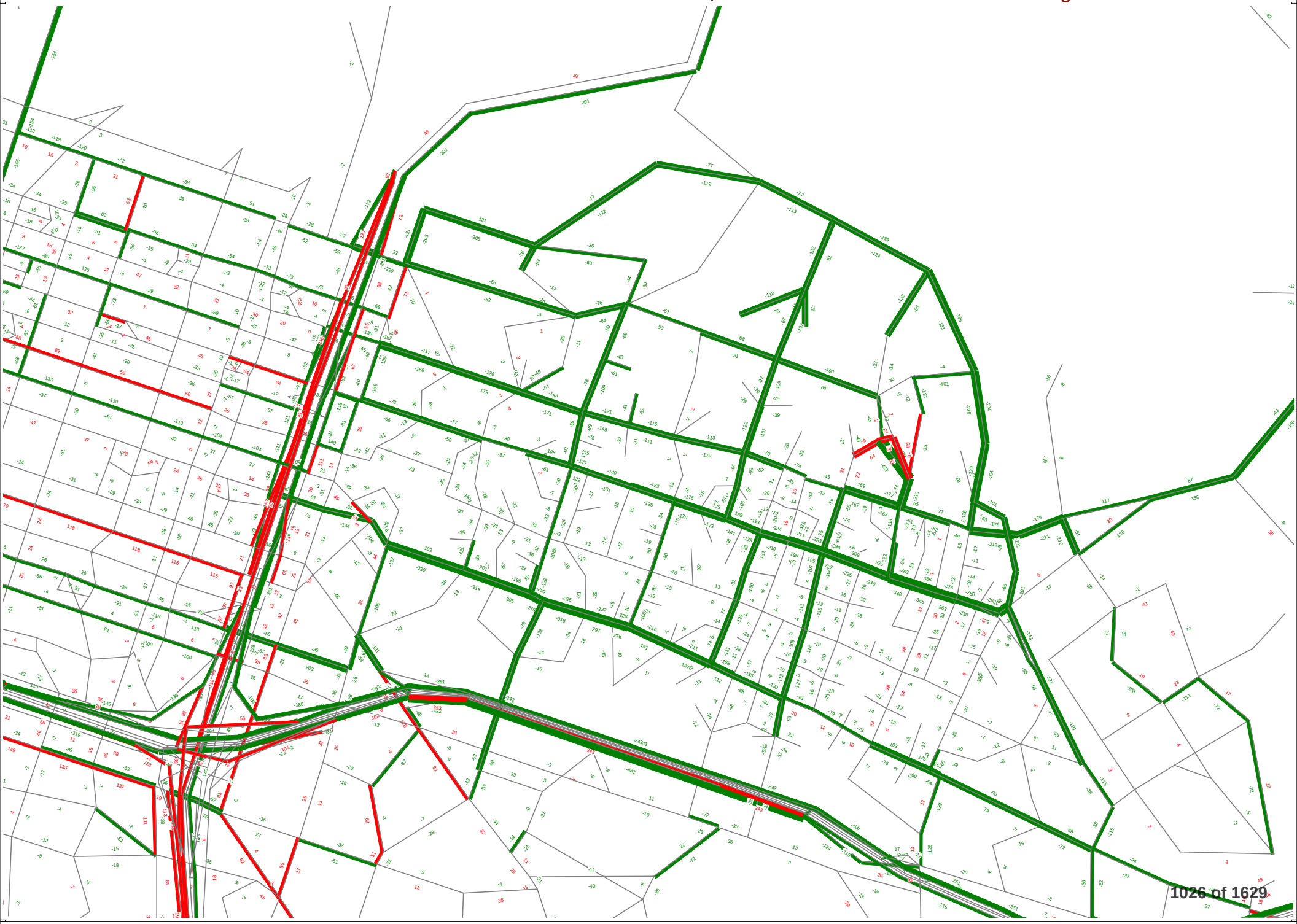
PM PEAK HOUR DIFFERENCE
GREEN -- Less Traffic with Project
RED -- More Traffic with Project



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Appendix 5 Existing Plus Project LOS Worksheets

Proposed Project Scenario

HCM Unsignalized Intersection Capacity Analysis
1: 50th St & F St

AM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	1	16	4	12	13	2	0	13	10	19	28	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1	16	4	12	13	2	0	13	10	19	28	3

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	21	27	23	50
Volume Left (vph)	1	12	0	19
Volume Right (vph)	4	2	10	3
Hadj (s)	-0.10	0.13	-0.22	0.12
Departure Headway (s)	4.0	4.2	3.8	4.1
Degree Utilization, x	0.02	0.03	0.02	0.06
Capacity (veh/h)	882	835	913	854
Control Delay (s)	7.1	7.3	6.9	7.4
Approach Delay (s)	7.1	7.3	6.9	7.4
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.2		
Level of Service	A		
Intersection Capacity Utilization	23.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
2: 51st St & F St

AM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	40	6	11	17	2	4	7	13	5	15	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	3	40	6	11	17	2	4	7	13	5	15	5
Pedestrians					3			2				
Lane Width (ft)					12.0			12.0				
Walking Speed (ft/s)					4.0			4.0				
Percent Blockage					0			0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	19			48			104	92	48	108	94	18
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	19			48			104	92	48	108	94	18
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	99	99	99	98	100
cM capacity (veh/h)	1597			1570			856	790	1017	844	788	1061

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	49	30	24	25
Volume Left	3	11	4	5
Volume Right	6	2	13	5
cSH	1597	1570	912	842
Volume to Capacity	0.00	0.01	0.03	0.03
Queue Length 95th (ft)	0	1	2	2
Control Delay (s)	0.5	2.7	9.1	9.4
Lane LOS	A	A	A	A
Approach Delay (s)	0.5	2.7	9.1	9.4
Approach LOS			A	A

Intersection Summary			
Average Delay	4.3		
Intersection Capacity Utilization	16.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: 53rd St & F St

AM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	15	21	27	18	21	31	12	25	12	10	17	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	15	21	27	18	21	31	12	25	12	10	17	3

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	63	70	49	30
Volume Left (vph)	15	18	12	10
Volume Right (vph)	27	31	12	3
Hadj (s)	-0.18	-0.19	-0.10	0.01
Departure Headway (s)	4.0	3.9	4.1	4.2
Degree Utilization, x	0.07	0.08	0.06	0.04
Capacity (veh/h)	883	889	839	819
Control Delay (s)	7.3	7.3	7.4	7.4
Approach Delay (s)	7.3	7.3	7.4	7.4
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.3		
Level of Service	A		
Intersection Capacity Utilization	19.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
4: Elvas Ave & F St

AM Peak - With Project
7/11/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	4	43	41	358	364	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	4	43	41	358	364	11
Pedestrians	5					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	636	192	380			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	636	192	380			
tC, single (s)	6.8	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	95	96			
cM capacity (veh/h)	399	804	1163			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	47	160	239	243	132
Volume Left	4	41	0	0	0
Volume Right	43	0	0	0	11
cSH	740	1163	1700	1700	1700
Volume to Capacity	0.06	0.04	0.14	0.14	0.08
Queue Length 95th (ft)	5	3	0	0	0
Control Delay (s)	10.2	2.3	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	10.2	0.9		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	35.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
5: 50th St & H St

AM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	478	6	7	586	7	3	3	10	9	12	29
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	8	478	6	7	586	7	3	3	10	9	12	29
Pedestrians		1			1			6			12	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		0			0			1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					1182							
pX, platoon unblocked												
vC, conflicting volume	605			490			1142	1122	488	1125	1122	602
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	605			490			1142	1122	488	1125	1122	602
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			98	99	98	95	94	94
cM capacity (veh/h)	958			1009			156	201	580	173	202	498

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	492	600	16	50
Volume Left	8	7	3	9
Volume Right	6	7	10	29
cSH	958	1009	312	294
Volume to Capacity	0.01	0.01	0.05	0.17
Queue Length 95th (ft)	1	1	4	15
Control Delay (s)	0.2	0.2	17.2	19.7
Lane LOS	A	A	C	C
Approach Delay (s)	0.2	0.2	17.2	19.7
Approach LOS			C	C

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	45.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: 51st St & H St

AM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	471	16	26	577	7	18	8	27	15	13	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	471	16	26	577	7	18	8	27	15	13	10
Pedestrians								4			9	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								4.0			4.0	
Percent Blockage								0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					889							
pX, platoon unblocked												
vC, conflicting volume	593			491			1144	1140	483	1164	1144	590
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	593			491			1144	1140	483	1164	1144	590
tC, single (s)	4.1			4.1			7.2	6.6	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.1	3.4	3.5	4.0	3.3
p0 queue free %	99			98			88	96	95	90	93	98
cM capacity (veh/h)	985			1079			153	186	572	153	193	508

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	493	610	53	38
Volume Left	6	26	18	15
Volume Right	16	7	27	10
cSH	985	1079	255	206
Volume to Capacity	0.01	0.02	0.21	0.18
Queue Length 95th (ft)	0	2	19	16
Control Delay (s)	0.2	0.7	22.8	26.4
Lane LOS	A	A	C	D
Approach Delay (s)	0.2	0.7	22.8	26.4
Approach LOS			C	D

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
7: 53rd St & H St

AM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	442	11	11	484	20	9	10	16	22	6	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			3.5			3.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.94			0.98	
Flt Protected		1.00			1.00			0.99			0.97	
Satd. Flow (prot)		1853			1851			1726			1761	
Flt Permitted		0.97			0.99			0.91			0.78	
Satd. Flow (perm)		1809			1837			1585			1424	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	22	442	11	11	484	20	9	10	16	22	6	6
RTOR Reduction (vph)	0	1	0	0	2	0	0	14	0	0	5	0
Lane Group Flow (vph)	0	474	0	0	513	0	0	21	0	0	29	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)		33.9			33.9			4.7			4.7	
Effective Green, g (s)		33.9			33.9			4.7			4.7	
Actuated g/C Ratio		0.74			0.74			0.10			0.10	
Clearance Time (s)		4.0			4.0			3.5			3.5	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1330			1350			161			145	
v/s Ratio Prot												
v/s Ratio Perm		0.26			c0.28			0.01			c0.02	
v/c Ratio		0.36			0.38			0.13			0.20	
Uniform Delay, d1		2.2			2.2			18.8			19.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			0.2			0.5			0.9	
Delay (s)		2.4			2.5			19.3			19.9	
Level of Service		A			A			B			B	
Approach Delay (s)		2.4			2.5			19.3			19.9	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	3.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	46.1	Sum of lost time (s)	7.5
Intersection Capacity Utilization	46.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
8: Coloma Way & D St

AM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	2	23	21	1	11	0	4	6	1	2	13	11
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	2	23	21	1	11	0	4	6	1	2	13	11

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	46	12	11	26
Volume Left (vph)	2	1	4	2
Volume Right (vph)	21	0	1	11
Hadj (s)	-0.27	0.16	0.02	-0.24
Departure Headway (s)	3.7	4.2	4.1	3.8
Degree Utilization, x	0.05	0.01	0.01	0.03
Capacity (veh/h)	950	848	861	930
Control Delay (s)	6.9	7.2	7.1	6.9
Approach Delay (s)	6.9	7.2	7.1	6.9
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.0		
Level of Service	A		
Intersection Capacity Utilization	17.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
10: Elvas Ave & C St

AM Peak - With Project
7/11/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	8	60	25	348	307	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	8	60	25	348	307	3
Pedestrians	7					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	714	316	317			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	714	316	317			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	92	98			
cM capacity (veh/h)	391	725	1247			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	68	373	310
Volume Left	8	25	0
Volume Right	60	0	3
cSH	659	1247	1700
Volume to Capacity	0.10	0.02	0.18
Queue Length 95th (ft)	9	2	0
Control Delay (s)	11.1	0.7	0.0
Lane LOS	B	A	
Approach Delay (s)	11.1	0.7	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	49.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
11: Coloma Way/50th St & E St

AM Peak - With Project
7/11/2013

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	20	4	7	8	1	38
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	20	4	7	8	1	38
Pedestrians	8					1
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	4.0					4.0
Percent Blockage	1					0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	59	20			23	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	59	20			23	
tC, single (s)	6.5	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	98	100			100	
cM capacity (veh/h)	926	1056			1595	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	24	15	39
Volume Left	20	0	1
Volume Right	4	8	0
cSH	946	1700	1595
Volume to Capacity	0.03	0.01	0.00
Queue Length 95th (ft)	2	0	0
Control Delay (s)	8.9	0.0	0.2
Lane LOS	A		A
Approach Delay (s)	8.9	0.0	0.2
Approach LOS	A		

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	16.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
14: F St & Middle Hospital Dwy

AM Peak - With Project
7/11/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	3	67	31	2	5	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	3	67	31	2	5	5
Pedestrians		1			10	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		0			1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	43				115	43
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	43				115	43
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1566				868	1012

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	70	33	10
Volume Left	3	0	5
Volume Right	0	2	5
cSH	1566	1700	934
Volume to Capacity	0.00	0.02	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.3	0.0	8.9
Lane LOS	A		A
Approach Delay (s)	0.3	0.0	8.9
Approach LOS			A

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	16.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
15: 53rd St & 51st St/D St

AM Peak - With Project
7/11/2013

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	32	0	3	26	1	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	32	0	3	26	1	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			32		64	32
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			32		64	32
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1580		940	1042

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	32	29	6
Volume Left	0	3	1
Volume Right	0	0	5
cSH	1700	1580	1023
Volume to Capacity	0.02	0.00	0.01
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.8	8.5
Lane LOS		A	A
Approach Delay (s)	0.0	0.8	8.5
Approach LOS			A

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	13.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
1: 50th St & F St

PM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	1	15	0	13	19	14	1	51	12	13	27	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1	15	0	13	19	14	1	51	12	13	27	3

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	16	46	64	43
Volume Left (vph)	1	13	1	13
Volume Right (vph)	0	14	12	3
Hadj (s)	0.01	-0.10	-0.08	0.04
Departure Headway (s)	4.2	4.0	4.0	4.1
Degree Utilization, x	0.02	0.05	0.07	0.05
Capacity (veh/h)	831	862	875	850
Control Delay (s)	7.3	7.3	7.3	7.4
Approach Delay (s)	7.3	7.3	7.3	7.4
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.3		
Level of Service	A		
Intersection Capacity Utilization	23.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
2: 51st St & F St

PM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	34	2	9	29	7	11	20	12	5	14	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	7	34	2	9	29	7	11	20	12	5	14	5
Pedestrians		2			1			10				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		4.0			4.0			4.0				
Percent Blockage		0			0			1				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	36			46			124	113	46	122	110	34
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	36			46			124	113	46	122	110	34
tC, single (s)	4.1			4.1			7.1	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	100			99			99	97	99	99	98	100
cM capacity (veh/h)	1575			1562			820	763	1003	813	765	1037

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	43	45	43	24
Volume Left	7	9	11	5
Volume Right	2	7	12	5
cSH	1575	1562	833	820
Volume to Capacity	0.00	0.01	0.05	0.03
Queue Length 95th (ft)	0	0	4	2
Control Delay (s)	1.2	1.5	9.6	9.5
Lane LOS	A	A	A	A
Approach Delay (s)	1.2	1.5	9.6	9.5
Approach LOS			A	A

Intersection Summary			
Average Delay	4.9		
Intersection Capacity Utilization	16.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: 53rd St & F St

PM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	4	34	11	28	41	15	20	22	13	13	22	4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	4	34	11	28	41	15	20	22	13	13	22	4

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	49	84	55	39
Volume Left (vph)	4	28	20	13
Volume Right (vph)	11	15	13	4
Hadj (s)	-0.08	0.00	-0.06	0.01
Departure Headway (s)	4.1	4.2	4.2	4.3
Degree Utilization, x	0.06	0.10	0.06	0.05
Capacity (veh/h)	848	842	826	813
Control Delay (s)	7.4	7.6	7.5	7.5
Approach Delay (s)	7.4	7.6	7.5	7.5
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.5		
Level of Service	A		
Intersection Capacity Utilization	26.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
4: Elvas Ave & F St

PM Peak - With Project
7/11/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	6	77	75	401	403	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	77	75	401	403	4
Pedestrians	7				1	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	4.0				4.0	
Percent Blockage	1				0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	764	210	414			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	764	210	414			
tC, single (s)	6.8	6.9	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	90	93			
cM capacity (veh/h)	319	790	1114			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	83	209	267	269	138
Volume Left	6	75	0	0	0
Volume Right	77	0	0	0	4
cSH	714	1114	1700	1700	1700
Volume to Capacity	0.12	0.07	0.16	0.16	0.08
Queue Length 95th (ft)	10	5	0	0	0
Control Delay (s)	10.7	3.4	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	10.7	1.5		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	40.1%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
5: 50th St & H St

PM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	31	584	11	10	532	27	3	12	6	12	7	16
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	31	584	11	10	532	27	3	12	6	12	7	16
Pedestrians					2			8			20	
Lane Width (ft)					12.0			12.0			12.0	
Walking Speed (ft/s)					4.0			4.0			4.0	
Percent Blockage					0			1			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					1182							
pX, platoon unblocked												
vC, conflicting volume	579			603			1244	1258	600	1251	1250	566
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	579			603			1244	1258	600	1251	1250	566
tC, single (s)	4.1			4.1			7.1	6.5	6.4	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.5	3.5	4.0	3.3
p0 queue free %	97			99			98	93	99	91	96	97
cM capacity (veh/h)	988			978			135	161	471	131	163	519

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	626	569	21	35
Volume Left	31	10	3	12
Volume Right	11	27	6	16
cSH	988	978	192	212
Volume to Capacity	0.03	0.01	0.11	0.17
Queue Length 95th (ft)	2	1	9	14
Control Delay (s)	0.8	0.3	26.0	25.3
Lane LOS	A	A	D	D
Approach Delay (s)	0.8	0.3	26.0	25.3
Approach LOS			D	D

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	59.0%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: 51st St & H St

PM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	568	21	23	531	19	20	20	44	8	8	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	10	568	21	23	531	19	20	20	44	8	8	5
Pedestrians								11			23	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								4.0			4.0	
Percent Blockage								1			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					889							
pX, platoon unblocked												
vC, conflicting volume	573			600			1205	1228	590	1262	1230	564
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	573			600			1205	1228	590	1262	1230	564
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			98			86	88	91	93	95	99
cM capacity (veh/h)	952			978			146	169	507	115	168	519

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	599	573	84	21
Volume Left	10	23	20	8
Volume Right	21	19	44	5
cSH	952	978	245	166
Volume to Capacity	0.01	0.02	0.34	0.13
Queue Length 95th (ft)	1	2	36	11
Control Delay (s)	0.3	0.6	27.1	29.8
Lane LOS	A	A	D	D
Approach Delay (s)	0.3	0.6	27.1	29.8
Approach LOS			D	D

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
7: 53rd St & H St

PM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	574	6	9	492	30	36	22	72	21	4	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			3.5			3.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.93			0.96	
Flt Protected		1.00			1.00			0.99			0.97	
Satd. Flow (prot)		1858			1847			1700			1742	
Flt Permitted		0.99			0.99			0.91			0.88	
Satd. Flow (perm)		1834			1833			1561			1584	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	16	574	6	9	492	30	36	22	72	21	4	9
RTOR Reduction (vph)	0	1	0	0	3	0	0	61	0	0	8	0
Lane Group Flow (vph)	0	595	0	0	528	0	0	69	0	0	26	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)		31.2			31.2			7.2			7.2	
Effective Green, g (s)		31.2			31.2			7.2			7.2	
Actuated g/C Ratio		0.68			0.68			0.16			0.16	
Clearance Time (s)		4.0			4.0			3.5			3.5	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1246			1245			244			248	
v/s Ratio Prot												
v/s Ratio Perm		c0.32			0.29			c0.04			0.02	
v/c Ratio		0.48			0.42			0.28			0.11	
Uniform Delay, d1		3.5			3.3			17.1			16.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.4			0.3			0.9			0.3	
Delay (s)		3.9			3.6			18.0			16.9	
Level of Service		A			A			B			B	
Approach Delay (s)		3.9			3.6			18.0			16.9	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	5.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	45.9	Sum of lost time (s)	7.5
Intersection Capacity Utilization	53.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
8: Coloma Way & D St

PM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	6	25	11	2	21	2	14	23	1	2	16	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	25	11	2	21	2	14	23	1	2	16	10

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	42	25	38	28
Volume Left (vph)	6	2	14	2
Volume Right (vph)	11	2	1	10
Hadj (s)	-0.09	0.18	0.06	0.04
Departure Headway (s)	4.0	4.3	4.1	4.1
Degree Utilization, x	0.05	0.03	0.04	0.03
Capacity (veh/h)	883	826	846	853
Control Delay (s)	7.2	7.4	7.3	7.3
Approach Delay (s)	7.2	7.4	7.3	7.3
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.3		
Level of Service	A		
Intersection Capacity Utilization	17.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
10: Elvas Ave & C St

PM Peak - With Project
7/11/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	3	44	51	333	347	8
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	3	44	51	333	347	8
Pedestrians	7					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	793	358	362			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	793	358	362			
tC, single (s)	6.4	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.2			
p0 queue free %	99	93	96			
cM capacity (veh/h)	343	671	1201			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	47	384	355
Volume Left	3	51	0
Volume Right	44	0	8
cSH	633	1201	1700
Volume to Capacity	0.07	0.04	0.21
Queue Length 95th (ft)	6	3	0
Control Delay (s)	11.1	1.5	0.0
Lane LOS	B	A	
Approach Delay (s)	11.1	1.5	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	52.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
11: Coloma Way/50th St & E St

PM Peak - With Project
7/11/2013

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	14	2	51	20	3	27
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	14	2	51	20	3	27
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	95	62			72	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	95	62			72	
tC, single (s)	6.4	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	98	100			100	
cM capacity (veh/h)	907	980			1540	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	16	71	30
Volume Left	14	0	3
Volume Right	2	20	0
cSH	915	1700	1540
Volume to Capacity	0.02	0.04	0.00
Queue Length 95th (ft)	1	0	0
Control Delay (s)	9.0	0.0	0.7
Lane LOS	A		A
Approach Delay (s)	9.0	0.0	0.7
Approach LOS	A		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	14.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
14: F St & Middle Hospital Dwy

PM Peak - With Project
7/11/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	7	46	52	7	5	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	7	46	52	7	5	5
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	63				120	60
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	63				120	60
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	99
cM capacity (veh/h)	1547				862	994

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	53	59	10
Volume Left	7	0	5
Volume Right	0	7	5
cSH	1547	1700	924
Volume to Capacity	0.00	0.03	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	1.0	0.0	8.9
Lane LOS	A		A
Approach Delay (s)	1.0	0.0	8.9
Approach LOS			A

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	18.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
15: 53rd St & 51st St/D St

PM Peak - With Project
7/11/2013

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	37	1	7	40	1	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	37	1	7	40	1	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			38		92	38
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			38		92	38
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1572		905	1035

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	38	47	6
Volume Left	0	7	1
Volume Right	1	0	5
cSH	1700	1572	1010
Volume to Capacity	0.02	0.00	0.01
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	1.1	8.6
Lane LOS		A	A
Approach Delay (s)	0.0	1.1	8.6
Approach LOS			A

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	18.1%	ICU Level of Service	A
Analysis Period (min)	15		

No 53rd St Extension Scenario

HCM Unsignalized Intersection Capacity Analysis
1: 50th St & F St

AM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	1	16	4	12	13	2	0	14	10	19	32	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1	16	4	12	13	2	0	14	10	19	32	3

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	21	27	24	54
Volume Left (vph)	1	12	0	19
Volume Right (vph)	4	2	10	3
Hadj (s)	-0.10	0.13	-0.21	0.11
Departure Headway (s)	4.0	4.2	3.8	4.1
Degree Utilization, x	0.02	0.03	0.03	0.06
Capacity (veh/h)	878	832	909	855
Control Delay (s)	7.1	7.4	6.9	7.4
Approach Delay (s)	7.1	7.4	6.9	7.4
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.3		
Level of Service	A		
Intersection Capacity Utilization	23.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
2: 51st St & F St

AM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	40	6	12	17	3	4	9	13	7	18	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	3	40	6	12	17	3	4	9	13	7	18	5
Pedestrians					3			2				
Lane Width (ft)					12.0			12.0				
Walking Speed (ft/s)					4.0			4.0				
Percent Blockage					0			0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	20			48			108	95	48	112	96	18
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	20			48			108	95	48	112	96	18
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	99	99	99	98	100
cM capacity (veh/h)	1596			1570			848	786	1017	838	785	1060

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	49	32	26	30
Volume Left	3	12	4	7
Volume Right	6	3	13	5
cSH	1596	1570	898	833
Volume to Capacity	0.00	0.01	0.03	0.04
Queue Length 95th (ft)	0	1	2	3
Control Delay (s)	0.5	2.8	9.1	9.5
Lane LOS	A	A	A	A
Approach Delay (s)	0.5	2.8	9.1	9.5
Approach LOS			A	A

Intersection Summary			
Average Delay	4.6		
Intersection Capacity Utilization	16.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: 53rd St & F St

AM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	14	29	34	20	26	26	16	18	12	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	14	29	34	20	26	26	16	18	12	0	0	0

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	77	72	46
Volume Left (vph)	14	20	16
Volume Right (vph)	34	26	12
Hadj (s)	-0.19	-0.13	-0.09
Departure Headway (s)	3.9	3.9	4.1
Degree Utilization, x	0.08	0.08	0.05
Capacity (veh/h)	909	896	836
Control Delay (s)	7.2	7.3	7.3
Approach Delay (s)	7.2	7.3	7.3
Approach LOS	A	A	A

Intersection Summary			
Delay	7.3		
Level of Service	A		
Intersection Capacity Utilization	25.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
4: Elvas Ave & F St

AM Peak - With Project
7/11/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	4	41	40	359	366	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	4	41	40	359	366	11
Pedestrians	5					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	636	194	382			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	636	194	382			
tC, single (s)	6.8	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	95	97			
cM capacity (veh/h)	399	803	1161			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	45	160	239	244	133
Volume Left	4	40	0	0	0
Volume Right	41	0	0	0	11
cSH	736	1161	1700	1700	1700
Volume to Capacity	0.06	0.03	0.14	0.14	0.08
Queue Length 95th (ft)	5	3	0	0	0
Control Delay (s)	10.2	2.3	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	10.2	0.9		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	35.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
5: 50th St & H St

AM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	477	6	7	585	8	3	3	10	11	12	31
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	8	477	6	7	585	8	3	3	10	11	12	31
Pedestrians		1			1			6			12	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		0			0			1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					1182							
pX, platoon unblocked												
vC, conflicting volume	605			489			1143	1121	487	1124	1120	602
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	605			489			1143	1121	487	1124	1120	602
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			98	99	98	94	94	94
cM capacity (veh/h)	958			1010			156	202	581	173	202	498

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	491	600	16	54
Volume Left	8	7	3	11
Volume Right	6	8	10	31
cSH	958	1010	311	292
Volume to Capacity	0.01	0.01	0.05	0.19
Queue Length 95th (ft)	1	1	4	17
Control Delay (s)	0.2	0.2	17.2	20.1
Lane LOS	A	A	C	C
Approach Delay (s)	0.2	0.2	17.2	20.1
Approach LOS			C	C

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: 51st St & H St

AM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	472	16	27	576	8	18	9	28	17	13	11
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	7	472	16	27	576	8	18	9	28	17	13	11
Pedestrians								4			9	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								4.0			4.0	
Percent Blockage								0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					889							
pX, platoon unblocked												
vC, conflicting volume	593			492			1150	1145	484	1170	1149	589
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	593			492			1150	1145	484	1170	1149	589
tC, single (s)	4.1			4.1			7.2	6.6	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.1	3.4	3.5	4.0	3.3
p0 queue free %	99			97			88	95	95	89	93	98
cM capacity (veh/h)	985			1078			151	185	571	151	192	508

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	495	611	55	41
Volume Left	7	27	18	17
Volume Right	16	8	28	11
cSH	985	1078	253	203
Volume to Capacity	0.01	0.03	0.22	0.20
Queue Length 95th (ft)	1	2	20	18
Control Delay (s)	0.2	0.7	23.1	27.2
Lane LOS	A	A	C	D
Approach Delay (s)	0.2	0.7	23.1	27.2
Approach LOS			C	D

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
7: 53rd St & H St

AM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	446	11	11	486	18	9	9	16	18	5	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			3.5			3.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			0.94			0.98	
Flt Protected		1.00			1.00			0.99			0.97	
Satd. Flow (prot)		1853			1852			1722			1767	
Flt Permitted		0.98			0.99			0.90			0.78	
Satd. Flow (perm)		1813			1838			1578			1422	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	21	446	11	11	486	18	9	9	16	18	5	4
RTOR Reduction (vph)	0	1	0	0	1	0	0	14	0	0	4	0
Lane Group Flow (vph)	0	477	0	0	514	0	0	20	0	0	23	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)		34.9			34.9			4.6			4.6	
Effective Green, g (s)		34.9			34.9			4.6			4.6	
Actuated g/C Ratio		0.74			0.74			0.10			0.10	
Clearance Time (s)		4.0			4.0			3.5			3.5	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1346			1364			154			139	
v/s Ratio Prot												
v/s Ratio Perm		0.26			c0.28			0.01			c0.02	
v/c Ratio		0.35			0.38			0.13			0.17	
Uniform Delay, d1		2.1			2.2			19.4			19.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			0.2			0.5			0.8	
Delay (s)		2.3			2.4			19.9			20.2	
Level of Service		A			A			B			C	
Approach Delay (s)		2.3			2.4			19.9			20.2	
Approach LOS		A			A			B			C	

Intersection Summary			
HCM 2000 Control Delay	3.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	47.0	Sum of lost time (s)	7.5
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
8: Coloma Way & D St

AM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	2	23	21	1	11	0	4	6	1	2	13	11
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	2	23	21	1	11	0	4	6	1	2	13	11

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	46	12	11	26
Volume Left (vph)	2	1	4	2
Volume Right (vph)	21	0	1	11
Hadj (s)	-0.27	0.16	0.02	-0.24
Departure Headway (s)	3.7	4.2	4.1	3.8
Degree Utilization, x	0.05	0.01	0.01	0.03
Capacity (veh/h)	950	848	861	930
Control Delay (s)	6.9	7.2	7.1	6.9
Approach Delay (s)	6.9	7.2	7.1	6.9
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.0		
Level of Service	A		
Intersection Capacity Utilization	17.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
10: Elvas Ave & C St

AM Peak - With Project
7/11/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	8	62	26	348	307	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	8	62	26	348	307	3
Pedestrians	7					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	716	316	317			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	716	316	317			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	91	98			
cM capacity (veh/h)	389	725	1247			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	70	374	310
Volume Left	8	26	0
Volume Right	62	0	3
cSH	660	1247	1700
Volume to Capacity	0.11	0.02	0.18
Queue Length 95th (ft)	9	2	0
Control Delay (s)	11.1	0.7	0.0
Lane LOS	B	A	
Approach Delay (s)	11.1	0.7	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	50.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
11: Coloma Way/50th St & E St

AM Peak - With Project
7/11/2013

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	24	4	7	10	1	38
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	24	4	7	10	1	38
Pedestrians	8					1
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	4.0					4.0
Percent Blockage	1					0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	60	21			25	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	60	21			25	
tC, single (s)	6.5	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	97	100			100	
cM capacity (veh/h)	925	1054			1592	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	28	17	39
Volume Left	24	0	1
Volume Right	4	10	0
cSH	942	1700	1592
Volume to Capacity	0.03	0.01	0.00
Queue Length 95th (ft)	2	0	0
Control Delay (s)	8.9	0.0	0.2
Lane LOS	A		A
Approach Delay (s)	8.9	0.0	0.2
Approach LOS	A		

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	16.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
14: F St & Middle Hospital Dwy

AM Peak - With Project
7/11/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	5	68	29	9	18	9
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	5	68	29	9	18	9
Pedestrians		1			10	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		0			1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	48				122	44
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	48				122	44
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				98	99
cM capacity (veh/h)	1559				859	1010

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	73	38	27
Volume Left	5	0	18
Volume Right	0	9	9
cSH	1559	1700	904
Volume to Capacity	0.00	0.02	0.03
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.5	0.0	9.1
Lane LOS	A		A
Approach Delay (s)	0.5	0.0	9.1
Approach LOS			A

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	18.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
15: 53rd St & 51st St/D St

AM Peak - With Project
7/11/2013

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	32	0	4	26	1	8
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	32	0	4	26	1	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			32		66	32
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			32		66	32
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			1580		937	1042

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	32	30	9
Volume Left	0	4	1
Volume Right	0	0	8
cSH	1700	1580	1029
Volume to Capacity	0.02	0.00	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	1.0	8.5
Lane LOS		A	A
Approach Delay (s)	0.0	1.0	8.5
Approach LOS			A

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	14.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
1: 50th St & F St

PM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	1	15	0	13	19	14	1	56	12	13	31	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1	15	0	13	19	14	1	56	12	13	31	3

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	16	46	69	47
Volume Left (vph)	1	13	1	13
Volume Right (vph)	0	14	12	3
Hadj (s)	0.01	-0.10	-0.07	0.04
Departure Headway (s)	4.2	4.1	4.0	4.1
Degree Utilization, x	0.02	0.05	0.08	0.05
Capacity (veh/h)	826	856	872	850
Control Delay (s)	7.3	7.3	7.3	7.4
Approach Delay (s)	7.3	7.3	7.3	7.4
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.3		
Level of Service	A		
Intersection Capacity Utilization	23.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
2: 51st St & F St

PM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	34	2	10	29	9	11	24	13	7	17	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	7	34	2	10	29	9	11	24	13	7	17	5
Pedestrians		2			1			10				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		4.0			4.0			4.0				
Percent Blockage		0			0			1				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	38			46			128	117	46	128	114	36
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	38			46			128	117	46	128	114	36
tC, single (s)	4.1			4.1			7.1	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	100			99			99	97	99	99	98	100
cM capacity (veh/h)	1572			1562			811	758	1003	801	762	1035

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	43	48	48	29
Volume Left	7	10	11	7
Volume Right	2	9	13	5
cSH	1572	1562	825	808
Volume to Capacity	0.00	0.01	0.06	0.04
Queue Length 95th (ft)	0	0	5	3
Control Delay (s)	1.2	1.6	9.6	9.6
Lane LOS	A	A	A	A
Approach Delay (s)	1.2	1.6	9.6	9.6
Approach LOS			A	A

Intersection Summary			
Average Delay	5.2		
Intersection Capacity Utilization	16.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: 53rd St & F St

PM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	1	41	18	35	53	1	29	2	13	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1	41	18	35	53	1	29	2	13	0	0	0

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	60	89	44
Volume Left (vph)	1	35	29
Volume Right (vph)	18	1	13
Hadj (s)	-0.14	0.12	-0.04
Departure Headway (s)	3.9	4.2	4.2
Degree Utilization, x	0.07	0.10	0.05
Capacity (veh/h)	893	847	825
Control Delay (s)	7.2	7.7	7.4
Approach Delay (s)	7.2	7.7	7.4
Approach LOS	A	A	A

Intersection Summary			
Delay	7.5		
Level of Service	A		
Intersection Capacity Utilization	29.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
4: Elvas Ave & F St

PM Peak - With Project
7/11/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	6	74	72	404	405	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	74	72	404	405	4
Pedestrians	7				1	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	4.0				4.0	
Percent Blockage	1				0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	761	212	416			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	761	212	416			
tC, single (s)	6.8	6.9	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	91	94			
cM capacity (veh/h)	321	789	1112			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	80	207	269	270	139
Volume Left	6	72	0	0	0
Volume Right	74	0	0	0	4
cSH	711	1112	1700	1700	1700
Volume to Capacity	0.11	0.06	0.16	0.16	0.08
Queue Length 95th (ft)	9	5	0	0	0
Control Delay (s)	10.7	3.3	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	10.7	1.4		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	39.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
5: 50th St & H St

PM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	33	582	11	10	531	30	3	12	6	14	7	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	33	582	11	10	531	30	3	12	6	14	7	18
Pedestrians					2			8			20	
Lane Width (ft)					12.0			12.0			12.0	
Walking Speed (ft/s)					4.0			4.0			4.0	
Percent Blockage					0			1			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					1182							
pX, platoon unblocked												
vC, conflicting volume	581			601			1249	1262	598	1254	1253	566
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	581			601			1249	1262	598	1254	1253	566
tC, single (s)	4.1			4.1			7.1	6.5	6.4	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.5	3.5	4.0	3.3
p0 queue free %	97			99			98	93	99	89	96	97
cM capacity (veh/h)	986			980			133	160	472	130	162	519

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	626	571	21	39
Volume Left	33	10	3	14
Volume Right	11	30	6	18
cSH	986	980	191	211
Volume to Capacity	0.03	0.01	0.11	0.19
Queue Length 95th (ft)	3	1	9	17
Control Delay (s)	0.9	0.3	26.2	25.9
Lane LOS	A	A	D	D
Approach Delay (s)	0.9	0.3	26.2	25.9
Approach LOS			D	D

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: 51st St & H St

PM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	11	567	21	24	532	22	20	21	45	11	9	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	11	567	21	24	532	22	20	21	45	11	9	6
Pedestrians								11			23	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								4.0			4.0	
Percent Blockage								1			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					889							
pX, platoon unblocked												
vC, conflicting volume	577			599			1212	1236	588	1269	1235	566
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	577			599			1212	1236	588	1269	1235	566
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			98			86	87	91	90	95	99
cM capacity (veh/h)	949			979			143	167	508	113	167	517

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	599	578	86	26
Volume Left	11	24	20	11
Volume Right	21	22	45	6
cSH	949	979	243	159
Volume to Capacity	0.01	0.02	0.35	0.16
Queue Length 95th (ft)	1	2	38	14
Control Delay (s)	0.3	0.7	27.7	31.9
Lane LOS	A	A	D	D
Approach Delay (s)	0.3	0.7	27.7	31.9
Approach LOS			D	D

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	54.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
7: 53rd St & H St

PM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	578	6	9	498	25	36	20	72	17	3	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			3.5			3.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.92			0.96	
Flt Protected		1.00			1.00			0.99			0.97	
Satd. Flow (prot)		1858			1849			1697			1743	
Flt Permitted		0.99			0.99			0.91			0.89	
Satd. Flow (perm)		1840			1836			1559			1596	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	13	578	6	9	498	25	36	20	72	17	3	7
RTOR Reduction (vph)	0	1	0	0	2	0	0	61	0	0	6	0
Lane Group Flow (vph)	0	596	0	0	530	0	0	67	0	0	21	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)		31.2			31.2			7.1			7.1	
Effective Green, g (s)		31.2			31.2			7.1			7.1	
Actuated g/C Ratio		0.68			0.68			0.16			0.16	
Clearance Time (s)		4.0			4.0			3.5			3.5	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1253			1250			241			247	
v/s Ratio Prot												
v/s Ratio Perm		c0.32			0.29			c0.04			0.01	
v/c Ratio		0.48			0.42			0.28			0.09	
Uniform Delay, d1		3.4			3.3			17.1			16.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.4			0.3			0.9			0.2	
Delay (s)		3.8			3.6			18.0			16.8	
Level of Service		A			A			B			B	
Approach Delay (s)		3.8			3.6			18.0			16.8	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	5.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	45.8	Sum of lost time (s)	7.5
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
8: Coloma Way & D St

PM Peak - With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	6	25	11	2	21	2	14	23	1	2	16	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	25	11	2	21	2	14	23	1	2	16	10

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	42	25	38	28
Volume Left (vph)	6	2	14	2
Volume Right (vph)	11	2	1	10
Hadj (s)	-0.09	0.18	0.06	0.04
Departure Headway (s)	4.0	4.3	4.1	4.1
Degree Utilization, x	0.05	0.03	0.04	0.03
Capacity (veh/h)	883	826	846	853
Control Delay (s)	7.2	7.4	7.3	7.3
Approach Delay (s)	7.2	7.4	7.3	7.3
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.3		
Level of Service	A		
Intersection Capacity Utilization	17.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
10: Elvas Ave & C St

PM Peak - With Project
7/11/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	3	46	54	333	347	8
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	3	46	54	333	347	8
Pedestrians	7					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	799	358	362			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	799	358	362			
tC, single (s)	6.4	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.2			
p0 queue free %	99	93	96			
cM capacity (veh/h)	339	671	1201			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	49	387	355
Volume Left	3	54	0
Volume Right	46	0	8
cSH	633	1201	1700
Volume to Capacity	0.08	0.04	0.21
Queue Length 95th (ft)	6	4	0
Control Delay (s)	11.2	1.5	0.0
Lane LOS	B	A	
Approach Delay (s)	11.2	1.5	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	52.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
11: Coloma Way/50th St & E St

PM Peak - With Project
7/11/2013

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	18	2	51	25	3	27
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	18	2	51	25	3	27
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	98	64			77	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	98	64			77	
tC, single (s)	6.4	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	98	100			100	
cM capacity (veh/h)	904	977			1533	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	20	76	30
Volume Left	18	0	3
Volume Right	2	25	0
cSH	911	1700	1533
Volume to Capacity	0.02	0.04	0.00
Queue Length 95th (ft)	2	0	0
Control Delay (s)	9.0	0.0	0.7
Lane LOS	A		A
Approach Delay (s)	9.0	0.0	0.7
Approach LOS	A		

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	14.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
14: F St & Middle Hospital Dwy

PM Peak - With Project
7/11/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	13	45	52	24	17	9
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	13	45	52	24	17	9
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	80				139	68
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	80				139	68
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				98	99
cM capacity (veh/h)	1526				837	984

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	58	76	26
Volume Left	13	0	17
Volume Right	0	24	9
cSH	1526	1700	883
Volume to Capacity	0.01	0.04	0.03
Queue Length 95th (ft)	1	0	2
Control Delay (s)	1.7	0.0	9.2
Lane LOS	A		A
Approach Delay (s)	1.7	0.0	9.2
Approach LOS			A

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	19.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
15: 53rd St & 51st St/D St

PM Peak - With Project
7/11/2013

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	37	1	10	40	1	8
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	37	1	10	40	1	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			38		98	38
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			38		98	38
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	99
cM capacity (veh/h)			1572		896	1035

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	38	50	9
Volume Left	0	10	1
Volume Right	1	0	8
cSH	1700	1572	1017
Volume to Capacity	0.02	0.01	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	1.5	8.6
Lane LOS		A	A
Approach Delay (s)	0.0	1.5	8.6
Approach LOS			A

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	19.3%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix 6 Near Term No Project LOS Worksheets

HCM Unsignalized Intersection Capacity Analysis
1: 50th St & F St

AM Peak - Near Term No Project
3/26/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	3	53	4	8	36	16	0	28	21	26	28	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	3	53	4	8	36	16	0	28	21	26	28	2

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	60	60	49	56
Volume Left (vph)	3	8	0	26
Volume Right (vph)	4	16	21	2
Hadj (s)	-0.03	0.00	-0.22	0.17
Departure Headway (s)	4.2	4.2	4.0	4.4
Degree Utilization, x	0.07	0.07	0.05	0.07
Capacity (veh/h)	837	833	861	796
Control Delay (s)	7.5	7.5	7.2	7.7
Approach Delay (s)	7.5	7.5	7.2	7.7
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.5		
Level of Service	A		
Intersection Capacity Utilization	23.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
2: 51st St & F St

AM Peak - Near Term No Project
3/26/2013

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	96	7	14	55	5	42
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	96	7	14	55	5	42
Pedestrians				3	2	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				4.0	4.0	
Percent Blockage				0	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			105		184	104
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			105		184	104
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		99	96
cM capacity (veh/h)			1497		800	946

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	103	69	47
Volume Left	0	14	5
Volume Right	7	0	42
cSH	1700	1497	928
Volume to Capacity	0.06	0.01	0.05
Queue Length 95th (ft)	0	1	4
Control Delay (s)	0.0	1.6	9.1
Lane LOS		A	A
Approach Delay (s)	0.0	1.6	9.1
Approach LOS			A

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	21.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: 53rd St & F St

AM Peak - Near Term No Project
3/26/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	58	52	24	18	42	105	29	74	12	18	46	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	58	52	24	18	42	105	29	74	12	18	46	5

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	134	165	115	69
Volume Left (vph)	58	18	29	18
Volume Right (vph)	24	105	12	5
Hadj (s)	0.02	-0.34	-0.01	0.01
Departure Headway (s)	4.6	4.2	4.7	4.7
Degree Utilization, x	0.17	0.19	0.15	0.09
Capacity (veh/h)	753	813	723	701
Control Delay (s)	8.5	8.2	8.5	8.2
Approach Delay (s)	8.5	8.2	8.5	8.2
Approach LOS	A	A	A	A

Intersection Summary			
Delay	8.3		
Level of Service	A		
Intersection Capacity Utilization	36.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
4: Elvas Ave & F St

AM Peak - Near Term No Project
3/26/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	6	78	138	387	362	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	78	138	387	362	11
Pedestrians	5					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	842	192	378			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	842	192	378			
tC, single (s)	6.8	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	90	88			
cM capacity (veh/h)	270	805	1165			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	84	267	258	241	132
Volume Left	6	138	0	0	0
Volume Right	78	0	0	0	11
cSH	705	1165	1700	1700	1700
Volume to Capacity	0.12	0.12	0.15	0.14	0.08
Queue Length 95th (ft)	10	10	0	0	0
Control Delay (s)	10.8	4.9	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	10.8	2.5		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	40.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
5: 50th St & H St

AM Peak - Near Term No Project
3/26/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	34	559	6	7	633	10	3	0	10	9	6	31
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	34	559	6	7	633	10	3	0	10	9	6	31
Pedestrians		1			1			6			12	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		0			0			1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					1182							
pX, platoon unblocked												
vC, conflicting volume	655			571			1323	1305	569	1305	1303	651
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	655			571			1323	1305	569	1305	1303	651
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			99			97	100	98	93	96	93
cM capacity (veh/h)	918			940			116	152	522	128	153	467

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	599	650	13	46
Volume Left	34	7	3	9
Volume Right	6	10	10	31
cSH	918	940	288	262
Volume to Capacity	0.04	0.01	0.05	0.18
Queue Length 95th (ft)	3	1	4	16
Control Delay (s)	1.0	0.2	18.1	21.7
Lane LOS	A	A	C	C
Approach Delay (s)	1.0	0.2	18.1	21.7
Approach LOS			C	C

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	61.7%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: 51st St & H St

AM Peak - Near Term No Project
3/26/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	31	527	16	25	624	4	18	10	27	7	7	13
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	31	527	16	25	624	4	18	10	27	7	7	13
Pedestrians								4			9	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								4.0			4.0	
Percent Blockage								0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					889							
pX, platoon unblocked												
vC, conflicting volume	637			547			1294	1288	539	1314	1294	635
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	637			547			1294	1288	539	1314	1294	635
tC, single (s)	4.1			4.1			7.2	6.6	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.1	3.4	3.5	4.0	3.3
p0 queue free %	97			98			85	93	95	94	95	97
cM capacity (veh/h)	949			1029			119	148	531	116	153	478

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	574	653	55	27
Volume Left	31	25	18	7
Volume Right	16	4	27	13
cSH	949	1029	204	203
Volume to Capacity	0.03	0.02	0.27	0.13
Queue Length 95th (ft)	3	2	26	11
Control Delay (s)	0.9	0.6	29.1	25.5
Lane LOS	A	A	D	D
Approach Delay (s)	0.9	0.6	29.1	25.5
Approach LOS			D	D

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	52.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
7: 53rd St & H St

AM Peak - Near Term No Project
3/26/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	47	450	11	11	535	46	0	25	16	13	11	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			3.5			3.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.95			0.93	
Flt Protected		1.00			1.00			1.00			0.99	
Satd. Flow (prot)		1849			1841			1765			1714	
Flt Permitted		0.93			0.99			1.00			0.90	
Satd. Flow (perm)		1724			1828			1765			1556	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	47	450	11	11	535	46	0	25	16	13	11	24
RTOR Reduction (vph)	0	1	0	0	3	0	0	14	0	0	22	0
Lane Group Flow (vph)	0	507	0	0	589	0	0	27	0	0	26	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)		33.7			33.7			4.7			4.7	
Effective Green, g (s)		33.7			33.7			4.7			4.7	
Actuated g/C Ratio		0.73			0.73			0.10			0.10	
Clearance Time (s)		4.0			4.0			3.5			3.5	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1265			1342			180			159	
v/s Ratio Prot								0.02				
v/s Ratio Perm		0.29			c0.32						c0.02	
v/c Ratio		0.40			0.44			0.15			0.17	
Uniform Delay, d1		2.3			2.4			18.8			18.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.3			0.3			0.5			0.7	
Delay (s)		2.6			2.7			19.3			19.5	
Level of Service		A			A			B			B	
Approach Delay (s)		2.6			2.7			19.3			19.5	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	3.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	45.9	Sum of lost time (s)	7.5
Intersection Capacity Utilization	66.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
8: Coloma Way & D St

AM Peak - Near Term No Project
3/26/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	2	13	29	1	20	0	9	13	1	2	20	11
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	2	13	29	1	20	0	9	13	1	2	20	11

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	44	21	23	33
Volume Left (vph)	2	1	9	2
Volume Right (vph)	29	0	1	11
Hadj (s)	-0.39	0.09	0.05	-0.19
Departure Headway (s)	3.7	4.1	4.1	3.9
Degree Utilization, x	0.04	0.02	0.03	0.04
Capacity (veh/h)	964	850	849	910
Control Delay (s)	6.8	7.2	7.2	7.0
Approach Delay (s)	6.8	7.2	7.2	7.0
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.0		
Level of Service	A		
Intersection Capacity Utilization	17.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
10: Elvas Ave & C St

AM Peak - Near Term No Project
3/26/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	6	58	34	368	307	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	58	34	368	307	2
Pedestrians	7					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	751	315	316			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	751	315	316			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	92	97			
cM capacity (veh/h)	369	726	1248			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	64	402	309
Volume Left	6	34	0
Volume Right	58	0	2
cSH	665	1248	1700
Volume to Capacity	0.10	0.03	0.18
Queue Length 95th (ft)	8	2	0
Control Delay (s)	11.0	0.9	0.0
Lane LOS	B	A	
Approach Delay (s)	11.0	0.9	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	51.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
11: Coloma Way/50th St & E St

AM Peak - Near Term No Project
3/26/2013

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	26	11	12	34	16	38
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	26	11	12	34	16	38
Pedestrians	8					1
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	4.0					4.0
Percent Blockage	1					0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	107	38			54	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	107	38			54	
tC, single (s)	6.5	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	97	99			99	
cM capacity (veh/h)	861	1032			1554	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	37	46	54
Volume Left	26	0	16
Volume Right	11	34	0
cSH	906	1700	1554
Volume to Capacity	0.04	0.03	0.01
Queue Length 95th (ft)	3	0	1
Control Delay (s)	9.1	0.0	2.2
Lane LOS	A		A
Approach Delay (s)	9.1	0.0	2.2
Approach LOS	A		

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	19.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
12: F St & W Hospital Dwy

AM Peak - Near Term No Project
3/26/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	23	112	54	16	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	23	112	54	16	0	0
Pedestrians		7			16	
Lane Width (ft)		12.0			0.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		1			0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	86				236	85
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	86				236	85
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				100	100
cM capacity (veh/h)	1523				745	974

Direction, Lane #	EB 1	WB 1
Volume Total	135	70
Volume Left	23	0
Volume Right	0	16
cSH	1523	1700
Volume to Capacity	0.02	0.04
Queue Length 95th (ft)	1	0
Control Delay (s)	1.4	0.0
Lane LOS	A	
Approach Delay (s)	1.4	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	25.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
13: F St & E Hospital Dwy

AM Peak - Near Term No Project
3/26/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	4	137	55	3	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	4	137	55	3	0	0
Pedestrians			1		8	
Lane Width (ft)			12.0		0.0	
Walking Speed (ft/s)			4.0		4.0	
Percent Blockage			0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	66				210	64
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	66				210	64
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1549				780	1005

Direction, Lane #	EB 1	WB 1
Volume Total	141	58
Volume Left	4	0
Volume Right	0	3
cSH	1549	1700
Volume to Capacity	0.00	0.03
Queue Length 95th (ft)	0	0
Control Delay (s)	0.2	0.0
Lane LOS	A	
Approach Delay (s)	0.2	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	13.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
14: F St & Middle Hospital Dwy

AM Peak - Near Term No Project
3/26/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	22	113	48	9	25	27
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	22	113	48	9	25	27
Pedestrians		1			10	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		0			1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	67				220	64
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	67				220	64
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				97	97
cM capacity (veh/h)	1535				747	986

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	135	57	52
Volume Left	22	0	25
Volume Right	0	9	27
cSH	1535	1700	855
Volume to Capacity	0.01	0.03	0.06
Queue Length 95th (ft)	1	0	5
Control Delay (s)	1.3	0.0	9.5
Lane LOS	A		A
Approach Delay (s)	1.3	0.0	9.5
Approach LOS			A

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	24.2%	ICU Level of Service	A
Analysis Period (min)	15		

9: 51st St & C St Performance by movement

Movement	EBT	WBL	WBT	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.1
Total Del/Veh (s)	5.0	0.1	0.2	0.9	0.8	3.8	4.8	2.2

HCM Unsignalized Intersection Capacity Analysis
1: 50th St & F St

Existing PM - Near Term No Project
3/26/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	36	0	14	65	17	1	42	5	19	37	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	36	0	14	65	17	1	42	5	19	37	2

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	36	96	48	58
Volume Left (vph)	0	14	1	19
Volume Right (vph)	0	17	5	2
Hadj (s)	0.00	-0.06	-0.03	0.07
Departure Headway (s)	4.2	4.1	4.2	4.3
Degree Utilization, x	0.04	0.11	0.06	0.07
Capacity (veh/h)	821	849	815	806
Control Delay (s)	7.4	7.6	7.5	7.6
Approach Delay (s)	7.4	7.6	7.5	7.6
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.6		
Level of Service	A		
Intersection Capacity Utilization	28.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
2: 51st St & F St

Existing PM - Near Term No Project
3/26/2013

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	60	3	11	69	14	16
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	60	3	11	69	14	16
Pedestrians	2			1	10	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	0			0	1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			73		164	72
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			73		164	72
tC, single (s)			4.1		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.4
p0 queue free %			99		98	98
cM capacity (veh/h)			1527		817	970

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	63	80	30
Volume Left	0	11	14
Volume Right	3	0	16
cSH	1700	1527	892
Volume to Capacity	0.04	0.01	0.03
Queue Length 95th (ft)	0	1	3
Control Delay (s)	0.0	1.1	9.2
Lane LOS		A	A
Approach Delay (s)	0.0	1.1	9.2
Approach LOS			A

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	21.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: 53rd St & F St

Existing PM - Near Term No Project
3/26/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	14	38	31	28	40	13	25	40	13	54	103	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	14	38	31	28	40	13	25	40	13	54	103	25

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	83	81	78	182
Volume Left (vph)	14	28	25	54
Volume Right (vph)	31	13	13	25
Hadj (s)	-0.17	0.01	-0.02	-0.01
Departure Headway (s)	4.4	4.6	4.5	4.4
Degree Utilization, x	0.10	0.10	0.10	0.22
Capacity (veh/h)	753	726	762	785
Control Delay (s)	7.9	8.1	8.0	8.6
Approach Delay (s)	7.9	8.1	8.0	8.6
Approach LOS	A	A	A	A

Intersection Summary			
Delay	8.3		
Level of Service	A		
Intersection Capacity Utilization	29.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
4: Elvas Ave & F St

Existing PM - Near Term No Project
3/26/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	6	122	73	398	401	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	122	73	398	401	4
Pedestrians	7				1	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	4.0				4.0	
Percent Blockage	1				0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	756	210	412			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	756	210	412			
tC, single (s)	6.8	6.9	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	85	93			
cM capacity (veh/h)	323	792	1116			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	128	206	265	267	138
Volume Left	6	73	0	0	0
Volume Right	122	0	0	0	4
cSH	741	1116	1700	1700	1700
Volume to Capacity	0.17	0.07	0.16	0.16	0.08
Queue Length 95th (ft)	16	5	0	0	0
Control Delay (s)	10.9	3.4	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	10.9	1.5		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
5: 50th St & H St

Existing PM - Near Term No Project
3/26/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	25	630	11	10	673	26	3	3	6	16	4	27
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	25	630	11	10	673	26	3	3	6	16	4	27
Pedestrians					2			8			20	
Lane Width (ft)					12.0			12.0			12.0	
Walking Speed (ft/s)					4.0			4.0			4.0	
Percent Blockage					0			1			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					1182							
pX, platoon unblocked												
vC, conflicting volume	719			649			1428	1432	646	1421	1425	706
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	719			649			1428	1432	646	1421	1425	706
tC, single (s)	4.1			4.1			7.1	6.5	6.4	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.5	3.5	4.0	3.3
p0 queue free %	97			99			97	98	99	85	97	94
cM capacity (veh/h)	877			940			99	127	443	104	128	432

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	666	709	12	47
Volume Left	25	10	3	16
Volume Right	11	26	6	27
cSH	877	940	178	190
Volume to Capacity	0.03	0.01	0.07	0.25
Queue Length 95th (ft)	2	1	5	23
Control Delay (s)	0.8	0.3	26.7	30.0
Lane LOS	A	A	D	D
Approach Delay (s)	0.8	0.3	26.7	30.0
Approach LOS			D	D

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	59.1%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: 51st St & H St

Existing PM - Near Term No Project
3/26/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	615	21	22	631	9	20	11	43	2	2	44
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	13	615	21	22	631	9	20	11	43	2	2	44
Pedestrians								11			23	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								4.0			4.0	
Percent Blockage								1			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					889							
pX, platoon unblocked												
vC, conflicting volume	663			647			1387	1370	636	1402	1376	658
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	663			647			1387	1370	636	1402	1376	658
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			98			80	92	91	98	99	90
cM capacity (veh/h)	881			940			102	138	477	94	137	459

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	649	662	74	48
Volume Left	13	22	20	2
Volume Right	21	9	43	44
cSH	881	940	203	364
Volume to Capacity	0.01	0.02	0.37	0.13
Queue Length 95th (ft)	1	2	39	11
Control Delay (s)	0.4	0.6	32.7	16.4
Lane LOS	A	A	D	C
Approach Delay (s)	0.4	0.6	32.7	16.4
Approach LOS			D	C

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	62.7%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
7: 53rd St & H St

Existing PM - Near Term No Project
3/26/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	602	6	9	515	32	36	36	72	40	21	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			3.5			3.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.93			0.93	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		1857			1847			1716			1699	
Flt Permitted		0.98			0.99			0.92			0.90	
Satd. Flow (perm)		1816			1833			1605			1555	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	24	602	6	9	515	32	36	36	72	40	21	75
RTOR Reduction (vph)	0	0	0	0	3	0	0	60	0	0	63	0
Lane Group Flow (vph)	0	632	0	0	553	0	0	84	0	0	73	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)		32.7			32.7			8.0			8.0	
Effective Green, g (s)		32.7			32.7			8.0			8.0	
Actuated g/C Ratio		0.68			0.68			0.17			0.17	
Clearance Time (s)		4.0			4.0			3.5			3.5	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1232			1243			266			258	
v/s Ratio Prot												
v/s Ratio Perm		c0.35			0.30			c0.05			0.05	
v/c Ratio		0.51			0.44			0.32			0.28	
Uniform Delay, d1		3.8			3.6			17.7			17.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.5			0.3			0.9			0.8	
Delay (s)		4.3			3.9			18.6			18.4	
Level of Service		A			A			B			B	
Approach Delay (s)		4.3			3.9			18.6			18.4	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	6.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	48.2	Sum of lost time (s)	7.5
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
8: Coloma Way & D St

Existing PM - Near Term No Project
3/26/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	6	24	10	2	30	2	20	29	1	2	16	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	24	10	2	30	2	20	29	1	2	16	10

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	40	34	50	28
Volume Left (vph)	6	2	20	2
Volume Right (vph)	10	2	1	10
Hadj (s)	-0.08	0.15	0.07	0.04
Departure Headway (s)	4.0	4.3	4.2	4.2
Degree Utilization, x	0.04	0.04	0.06	0.03
Capacity (veh/h)	870	824	839	845
Control Delay (s)	7.2	7.4	7.4	7.3
Approach Delay (s)	7.2	7.4	7.4	7.3
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.3		
Level of Service	A		
Intersection Capacity Utilization	20.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
10: Elvas Ave & C St

Existing PM - Near Term No Project
3/26/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	1	42	58	333	347	6
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1	42	58	333	347	6
Pedestrians	7					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	806	357	360			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	806	357	360			
tC, single (s)	6.4	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.2			
p0 queue free %	100	94	95			
cM capacity (veh/h)	335	672	1203			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	43	391	353
Volume Left	1	58	0
Volume Right	42	0	6
cSH	657	1203	1700
Volume to Capacity	0.07	0.05	0.21
Queue Length 95th (ft)	5	4	0
Control Delay (s)	10.9	1.6	0.0
Lane LOS	B	A	
Approach Delay (s)	10.9	1.6	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	52.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
11: Coloma Way/50th St & E St

Existing PM - Near Term No Project
3/26/2013

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	29	10	55	9	2	27
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	29	10	55	9	2	27
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	92	60			65	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	92	60			65	
tC, single (s)	6.4	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	97	99			100	
cM capacity (veh/h)	912	982			1549	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	39	64	29
Volume Left	29	0	2
Volume Right	10	9	0
cSH	929	1700	1549
Volume to Capacity	0.04	0.04	0.00
Queue Length 95th (ft)	3	0	0
Control Delay (s)	9.0	0.0	0.5
Lane LOS	A		A
Approach Delay (s)	9.0	0.0	0.5
Approach LOS	A		

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	13.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
12: F St & W Hospital Dwy

Existing PM - Near Term No Project
3/26/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	3	62	69	4	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	3	62	69	4	0	0
Pedestrians		2	2		21	
Lane Width (ft)		12.0	12.0		0.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	94				162	94
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	94				162	94
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1513				830	967

Direction, Lane #	EB 1	WB 1
Volume Total	65	73
Volume Left	3	0
Volume Right	0	4
cSH	1513	1700
Volume to Capacity	0.00	0.04
Queue Length 95th (ft)	0	0
Control Delay (s)	0.4	0.0
Lane LOS	A	
Approach Delay (s)	0.4	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	19.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
13: F St & E Hospital Dwy

Existing PM - Near Term No Project
3/26/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	78	78	0	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	78	78	0	0	0
Pedestrians					23	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	101				179	101
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	101				179	101
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1504				815	960

Direction, Lane #	EB 1	WB 1
Volume Total	78	78
Volume Left	0	0
Volume Right	0	0
cSH	1504	1700
Volume to Capacity	0.00	0.05
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	12.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
14: F St & Middle Hospital Dwy

Existing PM - Near Term No Project
3/26/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	13	55	65	9	20	22
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	13	55	65	9	20	22
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	78				154	74
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	78				154	74
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				98	98
cM capacity (veh/h)	1528				820	977

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	68	74	42
Volume Left	13	0	20
Volume Right	0	9	22
cSH	1528	1700	895
Volume to Capacity	0.01	0.04	0.05
Queue Length 95th (ft)	1	0	4
Control Delay (s)	1.5	0.0	9.2
Lane LOS	A		A
Approach Delay (s)	1.5	0.0	9.2
Approach LOS			A

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	20.3%	ICU Level of Service	A
Analysis Period (min)	15		

9: 51st St & C St Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.1	0.0
Total Del/Veh (s)	4.7	3.8	0.7	0.5	0.3	1.6	1.0	4.8	4.8	2.6	1.7

Appendix 7 Near Term Plus Project LOS Worksheets

Proposed Project Scenario

HCM Unsignalized Intersection Capacity Analysis
1: 50th St & F St

AM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	1	21	4	12	28	2	0	13	10	19	28	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1	21	4	12	28	2	0	13	10	19	28	3

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	26	42	23	50
Volume Left (vph)	1	12	0	19
Volume Right (vph)	4	2	10	3
Hadj (s)	-0.08	0.15	-0.22	0.12
Departure Headway (s)	4.0	4.2	3.9	4.2
Degree Utilization, x	0.03	0.05	0.02	0.06
Capacity (veh/h)	873	832	899	841
Control Delay (s)	7.1	7.4	7.0	7.4
Approach Delay (s)	7.1	7.4	7.0	7.4
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.3		
Level of Service	A		
Intersection Capacity Utilization	24.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
2: 51st St & F St

AM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	45	6	11	32	2	4	7	13	5	15	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	3	45	6	11	32	2	4	7	13	5	15	5
Pedestrians					3			2				
Lane Width (ft)					12.0			12.0				
Walking Speed (ft/s)					4.0			4.0				
Percent Blockage					0			0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	34			53			124	112	53	128	114	33
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	34			53			124	112	53	128	114	33
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	99	99	99	98	100
cM capacity (veh/h)	1578			1563			831	770	1010	819	768	1041

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	54	45	24	25
Volume Left	3	11	4	5
Volume Right	6	2	13	5
cSH	1578	1563	896	821
Volume to Capacity	0.00	0.01	0.03	0.03
Queue Length 95th (ft)	0	1	2	2
Control Delay (s)	0.4	1.8	9.1	9.5
Lane LOS	A	A	A	A
Approach Delay (s)	0.4	1.8	9.1	9.5
Approach LOS			A	A

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	16.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: 53rd St & F St

AM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	15	26	27	18	21	31	27	25	12	10	17	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	15	26	27	18	21	31	27	25	12	10	17	3

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	68	70	64	30
Volume Left (vph)	15	18	27	10
Volume Right (vph)	27	31	12	3
Hadj (s)	-0.16	-0.19	-0.03	0.01
Departure Headway (s)	4.0	4.0	4.2	4.3
Degree Utilization, x	0.08	0.08	0.07	0.04
Capacity (veh/h)	868	876	823	812
Control Delay (s)	7.3	7.3	7.5	7.4
Approach Delay (s)	7.3	7.3	7.5	7.4
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.4		
Level of Service	A		
Intersection Capacity Utilization	21.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
4: Elvas Ave & F St

AM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	6	46	41	388	364	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	46	41	388	364	11
Pedestrians	5					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	650	192	380			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	650	192	380			
tC, single (s)	6.8	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	94	96			
cM capacity (veh/h)	390	804	1163			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	52	170	259	243	132
Volume Left	6	41	0	0	0
Volume Right	46	0	0	0	11
cSH	716	1163	1700	1700	1700
Volume to Capacity	0.07	0.04	0.15	0.14	0.08
Queue Length 95th (ft)	6	3	0	0	0
Control Delay (s)	10.4	2.2	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	10.4	0.9		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	36.1%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
5: 50th St & H St

AM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	493	6	7	606	7	3	3	10	9	12	29
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	8	493	6	7	606	7	3	3	10	9	12	29
Pedestrians		1			1			6			12	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		0			0			1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					1182							
pX, platoon unblocked												
vC, conflicting volume	625			505			1178	1157	503	1160	1156	622
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	625			505			1178	1157	503	1160	1156	622
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			98	98	98	94	94	94
cM capacity (veh/h)	942			996			147	192	569	163	192	485

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	507	620	16	50
Volume Left	8	7	3	9
Volume Right	6	7	10	29
cSH	942	996	299	282
Volume to Capacity	0.01	0.01	0.05	0.18
Queue Length 95th (ft)	1	1	4	16
Control Delay (s)	0.2	0.2	17.7	20.5
Lane LOS	A	A	C	C
Approach Delay (s)	0.2	0.2	17.7	20.5
Approach LOS			C	C

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	47.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: 51st St & H St

AM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	486	16	26	597	7	18	8	27	15	13	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	486	16	26	597	7	18	8	27	15	13	10
Pedestrians								4			9	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								4.0			4.0	
Percent Blockage								0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					889							
pX, platoon unblocked												
vC, conflicting volume	613			506			1179	1175	498	1198	1180	610
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	613			506			1179	1175	498	1198	1180	610
tC, single (s)	4.1			4.1			7.2	6.6	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.1	3.4	3.5	4.0	3.3
p0 queue free %	99			98			87	95	95	90	93	98
cM capacity (veh/h)	969			1066			144	177	560	145	184	495

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	508	630	53	38
Volume Left	6	26	18	15
Volume Right	16	7	27	10
cSH	969	1066	243	195
Volume to Capacity	0.01	0.02	0.22	0.19
Queue Length 95th (ft)	0	2	20	17
Control Delay (s)	0.2	0.7	23.9	27.8
Lane LOS	A	A	C	D
Approach Delay (s)	0.2	0.7	23.9	27.8
Approach LOS			C	D

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
7: 53rd St & H St

AM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	457	11	11	529	35	0	10	16	22	6	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			3.5			3.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.92			0.98	
Flt Protected		1.00			1.00			1.00			0.97	
Satd. Flow (prot)		1853			1846			1708			1761	
Flt Permitted		0.97			0.99			1.00			0.79	
Satd. Flow (perm)		1806			1833			1708			1434	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	22	457	11	11	529	35	0	10	16	22	6	6
RTOR Reduction (vph)	0	1	0	0	3	0	0	14	0	0	5	0
Lane Group Flow (vph)	0	489	0	0	572	0	0	12	0	0	29	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)		35.9			35.9			4.6			4.6	
Effective Green, g (s)		35.9			35.9			4.6			4.6	
Actuated g/C Ratio		0.75			0.75			0.10			0.10	
Clearance Time (s)		4.0			4.0			3.5			3.5	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1350			1370			163			137	
v/s Ratio Prot								0.01				
v/s Ratio Perm		0.27			c0.31						c0.02	
v/c Ratio		0.36			0.42			0.07			0.21	
Uniform Delay, d1		2.1			2.2			19.8			20.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			0.3			0.3			1.0	
Delay (s)		2.3			2.5			20.0			21.1	
Level of Service		A			A			C			C	
Approach Delay (s)		2.3			2.5			20.0			21.1	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	3.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	48.0	Sum of lost time (s)	7.5
Intersection Capacity Utilization	51.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
8: Coloma Way & D St

AM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	2	13	21	1	21	0	4	6	1	2	13	11
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	2	13	21	1	21	0	4	6	1	2	13	11

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	36	22	11	26
Volume Left (vph)	2	1	4	2
Volume Right (vph)	21	0	1	11
Hadj (s)	-0.34	0.09	0.02	-0.24
Departure Headway (s)	3.7	4.1	4.1	3.8
Degree Utilization, x	0.04	0.03	0.01	0.03
Capacity (veh/h)	966	865	861	930
Control Delay (s)	6.8	7.2	7.1	6.9
Approach Delay (s)	6.8	7.2	7.1	6.9
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.0		
Level of Service	A		
Intersection Capacity Utilization	17.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
10: Elvas Ave & C St

AM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	8	60	35	368	307	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	8	60	35	368	307	3
Pedestrians	7					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	754	316	317			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	754	316	317			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	92	97			
cM capacity (veh/h)	367	725	1247			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	68	403	310
Volume Left	8	35	0
Volume Right	60	0	3
cSH	651	1247	1700
Volume to Capacity	0.10	0.03	0.18
Queue Length 95th (ft)	9	2	0
Control Delay (s)	11.2	1.0	0.0
Lane LOS	B	A	
Approach Delay (s)	11.2	1.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
11: Coloma Way/50th St & E St

AM Peak - Near Term With Project
7/11/2013

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	20	4	7	8	1	38
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	20	4	7	8	1	38
Pedestrians	8					1
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	4.0					4.0
Percent Blockage	1					0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	59	20			23	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	59	20			23	
tC, single (s)	6.5	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	98	100			100	
cM capacity (veh/h)	926	1056			1595	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	24	15	39
Volume Left	20	0	1
Volume Right	4	8	0
cSH	946	1700	1595
Volume to Capacity	0.03	0.01	0.00
Queue Length 95th (ft)	2	0	0
Control Delay (s)	8.9	0.0	0.2
Lane LOS	A		A
Approach Delay (s)	8.9	0.0	0.2
Approach LOS	A		

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	16.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
14: F St & Middle Hospital Dwy

AM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	3	67	31	2	5	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	3	67	31	2	5	5
Pedestrians		1			10	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		0			1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	43				115	43
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	43				115	43
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1566				868	1012

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	70	33	10
Volume Left	3	0	5
Volume Right	0	2	5
cSH	1566	1700	934
Volume to Capacity	0.00	0.02	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.3	0.0	8.9
Lane LOS	A		A
Approach Delay (s)	0.3	0.0	8.9
Approach LOS			A

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	16.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
15: 53rd St & 51st St/D St

AM Peak - Near Term With Project
7/11/2013

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	32	0	3	36	1	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	32	0	3	36	1	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			32		74	32
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			32		74	32
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1580		928	1042

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	32	39	6
Volume Left	0	3	1
Volume Right	0	0	5
cSH	1700	1580	1021
Volume to Capacity	0.02	0.00	0.01
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.6	8.5
Lane LOS		A	A
Approach Delay (s)	0.0	0.6	8.5
Approach LOS			A

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	14.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
1: 50th St & F St

PM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	1	25	0	13	45	14	1	51	12	13	27	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1	25	0	13	45	14	1	51	12	13	27	3

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	26	72	64	43
Volume Left (vph)	1	13	1	13
Volume Right (vph)	0	14	12	3
Hadj (s)	0.01	-0.06	-0.08	0.04
Departure Headway (s)	4.2	4.1	4.1	4.2
Degree Utilization, x	0.03	0.08	0.07	0.05
Capacity (veh/h)	826	852	852	827
Control Delay (s)	7.3	7.5	7.4	7.4
Approach Delay (s)	7.3	7.5	7.4	7.4
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.4		
Level of Service	A		
Intersection Capacity Utilization	25.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
2: 51st St & F St

PM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	44	2	9	39	7	14	20	12	5	14	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	7	44	2	9	39	7	14	20	12	5	14	18
Pedestrians		2			1			10				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		4.0			4.0			4.0				
Percent Blockage		0			0			1				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	46			56			156	133	56	142	130	44
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	46			56			156	133	56	142	130	44
tC, single (s)	4.1			4.1			7.1	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	100			99			98	97	99	99	98	98
cM capacity (veh/h)	1562			1549			770	744	990	788	746	1024

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	53	55	46	37
Volume Left	7	9	14	5
Volume Right	2	7	12	18
cSH	1562	1549	804	867
Volume to Capacity	0.00	0.01	0.06	0.04
Queue Length 95th (ft)	0	0	5	3
Control Delay (s)	1.0	1.2	9.7	9.3
Lane LOS	A	A	A	A
Approach Delay (s)	1.0	1.2	9.7	9.3
Approach LOS			A	A

Intersection Summary				
Average Delay		4.8		
Intersection Capacity Utilization		18.2%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
3: 53rd St & F St

PM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	4	34	21	28	41	15	30	22	13	13	22	4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	4	34	21	28	41	15	30	22	13	13	22	4

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	59	84	65	39
Volume Left (vph)	4	28	30	13
Volume Right (vph)	21	15	13	4
Hadj (s)	-0.17	0.00	-0.02	0.01
Departure Headway (s)	4.0	4.2	4.2	4.3
Degree Utilization, x	0.07	0.10	0.08	0.05
Capacity (veh/h)	859	833	814	795
Control Delay (s)	7.3	7.6	7.6	7.5
Approach Delay (s)	7.3	7.6	7.6	7.5
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.5		
Level of Service	A		
Intersection Capacity Utilization	27.1%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
4: Elvas Ave & F St

PM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	6	77	75	401	403	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	77	75	401	403	4
Pedestrians	7				1	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	4.0				4.0	
Percent Blockage	1				0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	764	210	414			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	764	210	414			
tC, single (s)	6.8	6.9	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	90	93			
cM capacity (veh/h)	319	790	1114			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	83	209	267	269	138
Volume Left	6	75	0	0	0
Volume Right	77	0	0	0	4
cSH	714	1114	1700	1700	1700
Volume to Capacity	0.12	0.07	0.16	0.16	0.08
Queue Length 95th (ft)	10	5	0	0	0
Control Delay (s)	10.7	3.4	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	10.7	1.5		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	40.1%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
5: 50th St & H St

PM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	31	614	11	10	600	27	3	12	6	12	7	16
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	31	614	11	10	600	27	3	12	6	12	7	16
Pedestrians					2			8			20	
Lane Width (ft)					12.0			12.0			12.0	
Walking Speed (ft/s)					4.0			4.0			4.0	
Percent Blockage					0			1			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					1182							
pX, platoon unblocked												
vC, conflicting volume	647			633			1342	1356	630	1349	1348	634
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	647			633			1342	1356	630	1349	1348	634
tC, single (s)	4.1			4.1			7.1	6.5	6.4	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.5	3.5	4.0	3.3
p0 queue free %	97			99			97	91	99	89	95	97
cM capacity (veh/h)	932			953			114	141	452	111	142	475

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	656	637	21	35
Volume Left	31	10	3	12
Volume Right	11	27	6	16
cSH	932	953	168	183
Volume to Capacity	0.03	0.01	0.12	0.19
Queue Length 95th (ft)	3	1	10	17
Control Delay (s)	0.9	0.3	29.4	29.2
Lane LOS	A	A	D	D
Approach Delay (s)	0.9	0.3	29.4	29.2
Approach LOS			D	D

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: 51st St & H St

PM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	598	21	23	561	19	20	20	44	8	8	43
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	10	598	21	23	561	19	20	20	44	8	8	43
Pedestrians								11			23	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								4.0			4.0	
Percent Blockage								1			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					889							
pX, platoon unblocked												
vC, conflicting volume	603			630			1303	1288	620	1322	1290	594
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	603			630			1303	1288	620	1322	1290	594
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			98			83	87	91	92	95	91
cM capacity (veh/h)	928			953			115	155	487	103	155	499

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	629	603	84	59
Volume Left	10	23	20	8
Volume Right	21	19	44	43
cSH	928	953	214	274
Volume to Capacity	0.01	0.02	0.39	0.22
Queue Length 95th (ft)	1	2	44	20
Control Delay (s)	0.3	0.7	32.3	21.7
Lane LOS	A	A	D	C
Approach Delay (s)	0.3	0.7	32.3	21.7
Approach LOS			D	C

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
7: 53rd St & H St

PM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	604	6	9	522	40	36	22	72	31	4	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			3.5			3.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.93			0.97	
Flt Protected		1.00			1.00			0.99			0.97	
Satd. Flow (prot)		1858			1844			1700			1750	
Flt Permitted		0.99			0.99			0.90			0.84	
Satd. Flow (perm)		1834			1830			1554			1515	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	16	604	6	9	522	40	36	22	72	31	4	9
RTOR Reduction (vph)	0	0	0	0	3	0	0	61	0	0	8	0
Lane Group Flow (vph)	0	626	0	0	568	0	0	69	0	0	36	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)		32.4			32.4			7.2			7.2	
Effective Green, g (s)		32.4			32.4			7.2			7.2	
Actuated g/C Ratio		0.69			0.69			0.15			0.15	
Clearance Time (s)		4.0			4.0			3.5			3.5	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1261			1258			237			231	
v/s Ratio Prot												
v/s Ratio Perm		c0.34			0.31			c0.04			0.02	
v/c Ratio		0.50			0.45			0.29			0.16	
Uniform Delay, d1		3.5			3.3			17.7			17.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.4			0.4			0.9			0.4	
Delay (s)		3.9			3.7			18.6			17.8	
Level of Service		A			A			B			B	
Approach Delay (s)		3.9			3.7			18.6			17.8	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	5.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	47.1	Sum of lost time (s)	7.5
Intersection Capacity Utilization	55.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
8: Coloma Way & D St

PM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	6	25	11	2	31	2	14	23	1	2	16	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	25	11	2	31	2	14	23	1	2	16	10

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	42	35	38	28
Volume Left (vph)	6	2	14	2
Volume Right (vph)	11	2	1	10
Hadj (s)	-0.09	0.15	0.06	0.04
Departure Headway (s)	4.0	4.2	4.2	4.1
Degree Utilization, x	0.05	0.04	0.04	0.03
Capacity (veh/h)	880	831	839	846
Control Delay (s)	7.2	7.4	7.3	7.3
Approach Delay (s)	7.2	7.4	7.3	7.3
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.3		
Level of Service	A		
Intersection Capacity Utilization	17.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
10: Elvas Ave & C St

PM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	3	44	61	333	347	8
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	3	44	61	333	347	8
Pedestrians	7					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	813	358	362			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	813	358	362			
tC, single (s)	6.4	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.2			
p0 queue free %	99	93	95			
cM capacity (veh/h)	331	671	1201			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	47	394	355
Volume Left	3	61	0
Volume Right	44	0	8
cSH	630	1201	1700
Volume to Capacity	0.07	0.05	0.21
Queue Length 95th (ft)	6	4	0
Control Delay (s)	11.2	1.7	0.0
Lane LOS	B	A	
Approach Delay (s)	11.2	1.7	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	53.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
11: Coloma Way/50th St & E St

PM Peak - Near Term With Project
7/11/2013

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	14	2	51	20	3	27
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	14	2	51	20	3	27
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	95	62			72	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	95	62			72	
tC, single (s)	6.4	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	98	100			100	
cM capacity (veh/h)	907	980			1540	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	16	71	30
Volume Left	14	0	3
Volume Right	2	20	0
cSH	915	1700	1540
Volume to Capacity	0.02	0.04	0.00
Queue Length 95th (ft)	1	0	0
Control Delay (s)	9.0	0.0	0.7
Lane LOS	A		A
Approach Delay (s)	9.0	0.0	0.7
Approach LOS	A		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	14.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
14: F St & Middle Hospital Dwy

PM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	7	46	52	7	5	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	7	46	52	7	5	5
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	63				120	60
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	63				120	60
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	99
cM capacity (veh/h)	1547				862	994

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	53	59	10
Volume Left	7	0	5
Volume Right	0	7	5
cSH	1547	1700	924
Volume to Capacity	0.00	0.03	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	1.0	0.0	8.9
Lane LOS	A		A
Approach Delay (s)	1.0	0.0	8.9
Approach LOS			A

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	18.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
15: 53rd St & 51st St/D St

PM Peak - Near Term With Project
7/11/2013

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	37	1	7	40	1	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	37	1	7	40	1	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			38		92	38
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			38		92	38
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1572		905	1035

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	38	47	6
Volume Left	0	7	1
Volume Right	1	0	5
cSH	1700	1572	1010
Volume to Capacity	0.02	0.00	0.01
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	1.1	8.6
Lane LOS		A	A
Approach Delay (s)	0.0	1.1	8.6
Approach LOS			A

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	18.1%	ICU Level of Service	A
Analysis Period (min)	15		

No 53rd St Extension Scenario

HCM Unsignalized Intersection Capacity Analysis
1: 50th St & F St

AM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	1	21	4	12	28	2	0	14	10	19	32	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1	21	4	12	28	2	0	14	10	19	32	3

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	26	42	24	54
Volume Left (vph)	1	12	0	19
Volume Right (vph)	4	2	10	3
Hadj (s)	-0.08	0.15	-0.21	0.11
Departure Headway (s)	4.0	4.2	3.9	4.2
Degree Utilization, x	0.03	0.05	0.03	0.06
Capacity (veh/h)	870	829	895	843
Control Delay (s)	7.1	7.5	7.0	7.5
Approach Delay (s)	7.1	7.5	7.0	7.5
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.3		
Level of Service	A		
Intersection Capacity Utilization	24.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
2: 51st St & F St

AM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	45	6	12	32	3	4	9	13	7	18	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	3	45	6	12	32	3	4	9	13	7	18	5
Pedestrians					3			2				
Lane Width (ft)					12.0			12.0				
Walking Speed (ft/s)					4.0			4.0				
Percent Blockage					0			0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	35			53			128	115	53	132	116	34
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	35			53			128	115	53	132	116	34
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	99	99	99	98	100
cM capacity (veh/h)	1576			1563			823	767	1010	813	765	1040

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	54	47	26	30
Volume Left	3	12	4	7
Volume Right	6	3	13	5
cSH	1576	1563	882	812
Volume to Capacity	0.00	0.01	0.03	0.04
Queue Length 95th (ft)	0	1	2	3
Control Delay (s)	0.4	1.9	9.2	9.6
Lane LOS	A	A	A	A
Approach Delay (s)	0.4	1.9	9.2	9.6
Approach LOS			A	A

Intersection Summary			
Average Delay	4.1		
Intersection Capacity Utilization	17.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: 53rd St & F St

AM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	14	34	34	20	26	26	31	18	12	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	14	34	34	20	26	26	31	18	12	0	0	0

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	82	72	61
Volume Left (vph)	14	20	31
Volume Right (vph)	34	26	12
Hadj (s)	-0.17	-0.13	-0.02
Departure Headway (s)	3.9	4.0	4.2
Degree Utilization, x	0.09	0.08	0.07
Capacity (veh/h)	893	883	820
Control Delay (s)	7.3	7.3	7.5
Approach Delay (s)	7.3	7.3	7.5
Approach LOS	A	A	A

Intersection Summary			
Delay	7.4		
Level of Service	A		
Intersection Capacity Utilization	26.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
4: Elvas Ave & F St

AM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	6	44	40	389	366	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	44	40	389	366	11
Pedestrians	5					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	651	194	382			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	651	194	382			
tC, single (s)	6.8	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	95	97			
cM capacity (veh/h)	390	803	1161			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	50	170	259	244	133
Volume Left	6	40	0	0	0
Volume Right	44	0	0	0	11
cSH	712	1161	1700	1700	1700
Volume to Capacity	0.07	0.03	0.15	0.14	0.08
Queue Length 95th (ft)	6	3	0	0	0
Control Delay (s)	10.4	2.2	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	10.4	0.9		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	36.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
5: 50th St & H St

AM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	492	6	7	605	8	3	3	10	11	12	31
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	8	492	6	7	605	8	3	3	10	11	12	31
Pedestrians		1			1			6			12	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		0			0			1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					1182							
pX, platoon unblocked												
vC, conflicting volume	625			504			1178	1156	502	1158	1155	622
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	625			504			1178	1156	502	1158	1155	622
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			98	98	98	93	94	94
cM capacity (veh/h)	942			997			147	192	570	164	193	485

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	506	620	16	54
Volume Left	8	7	3	11
Volume Right	6	8	10	31
cSH	942	997	298	279
Volume to Capacity	0.01	0.01	0.05	0.19
Queue Length 95th (ft)	1	1	4	18
Control Delay (s)	0.2	0.2	17.7	21.0
Lane LOS	A	A	C	C
Approach Delay (s)	0.2	0.2	17.7	21.0
Approach LOS			C	C

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: 51st St & H St

AM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	487	16	27	596	8	18	9	28	17	13	11
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	7	487	16	27	596	8	18	9	28	17	13	11
Pedestrians								4			9	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								4.0			4.0	
Percent Blockage								0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					889							
pX, platoon unblocked												
vC, conflicting volume	613			507			1184	1180	499	1204	1184	609
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	613			507			1184	1180	499	1204	1184	609
tC, single (s)	4.1			4.1			7.2	6.6	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.1	3.4	3.5	4.0	3.3
p0 queue free %	99			97			87	95	95	88	93	98
cM capacity (veh/h)	969			1065			142	176	560	142	183	495

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	510	631	55	41
Volume Left	7	27	18	17
Volume Right	16	8	28	11
cSH	969	1065	241	193
Volume to Capacity	0.01	0.03	0.23	0.21
Queue Length 95th (ft)	1	2	21	19
Control Delay (s)	0.2	0.7	24.3	28.7
Lane LOS	A	A	C	D
Approach Delay (s)	0.2	0.7	24.3	28.7
Approach LOS			C	D

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
7: 53rd St & H St

AM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	461	11	11	531	33	0	9	16	18	5	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			3.5			3.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.91			0.98	
Flt Protected		1.00			1.00			1.00			0.97	
Satd. Flow (prot)		1853			1847			1702			1767	
Flt Permitted		0.97			0.99			1.00			1.00	
Satd. Flow (perm)		1810			1834			1702			1825	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	21	461	11	11	531	33	0	9	16	18	5	4
RTOR Reduction (vph)	0	1	0	0	2	0	0	15	0	0	4	0
Lane Group Flow (vph)	0	492	0	0	573	0	0	10	0	0	23	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)		36.6			36.6			3.1			3.1	
Effective Green, g (s)		36.6			36.6			3.1			3.1	
Actuated g/C Ratio		0.78			0.78			0.07			0.07	
Clearance Time (s)		4.0			4.0			3.5			3.5	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1403			1422			111			119	
v/s Ratio Prot								0.01				
v/s Ratio Perm		0.27			c0.31						c0.01	
v/c Ratio		0.35			0.40			0.09			0.20	
Uniform Delay, d1		1.6			1.7			20.7			20.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			0.3			0.5			1.1	
Delay (s)		1.8			2.0			21.2			22.0	
Level of Service		A			A			C			C	
Approach Delay (s)		1.8			2.0			21.2			22.0	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	2.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	47.2	Sum of lost time (s)	7.5
Intersection Capacity Utilization	50.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
8: Coloma Way & D St

AM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	2	13	21	1	21	0	4	6	1	2	13	11
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	2	13	21	1	21	0	4	6	1	2	13	11

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	36	22	11	26
Volume Left (vph)	2	1	4	2
Volume Right (vph)	21	0	1	11
Hadj (s)	-0.34	0.09	0.02	-0.24
Departure Headway (s)	3.7	4.1	4.1	3.8
Degree Utilization, x	0.04	0.03	0.01	0.03
Capacity (veh/h)	966	865	861	930
Control Delay (s)	6.8	7.2	7.1	6.9
Approach Delay (s)	6.8	7.2	7.1	6.9
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.0		
Level of Service	A		
Intersection Capacity Utilization	17.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
10: Elvas Ave & C St

AM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	8	62	36	368	307	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	8	62	36	368	307	3
Pedestrians	7					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	756	316	317			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	756	316	317			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	91	97			
cM capacity (veh/h)	366	725	1247			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	70	404	310
Volume Left	8	36	0
Volume Right	62	0	3
cSH	652	1247	1700
Volume to Capacity	0.11	0.03	0.18
Queue Length 95th (ft)	9	2	0
Control Delay (s)	11.2	1.0	0.0
Lane LOS	B	A	
Approach Delay (s)	11.2	1.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
11: Coloma Way/50th St & E St

AM Peak - Near Term With Project
7/11/2013

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	24	4	7	10	1	38
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	24	4	7	10	1	38
Pedestrians	8					1
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	4.0					4.0
Percent Blockage	1					0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	60	21			25	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	60	21			25	
tC, single (s)	6.5	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	97	100			100	
cM capacity (veh/h)	925	1054			1592	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	28	17	39
Volume Left	24	0	1
Volume Right	4	10	0
cSH	942	1700	1592
Volume to Capacity	0.03	0.01	0.00
Queue Length 95th (ft)	2	0	0
Control Delay (s)	8.9	0.0	0.2
Lane LOS	A		A
Approach Delay (s)	8.9	0.0	0.2
Approach LOS	A		

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	16.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
14: F St & Middle Hospital Dwy

AM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	5	68	29	9	18	9
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	5	68	29	9	18	9
Pedestrians		1			10	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		0			1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	48				122	44
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	48				122	44
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				98	99
cM capacity (veh/h)	1559				859	1010

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	73	38	27
Volume Left	5	0	18
Volume Right	0	9	9
cSH	1559	1700	904
Volume to Capacity	0.00	0.02	0.03
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.5	0.0	9.1
Lane LOS	A		A
Approach Delay (s)	0.5	0.0	9.1
Approach LOS			A

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	18.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
15: 53rd St & 51st St/D St

AM Peak - Near Term With Project
7/11/2013

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	32	0	4	36	1	8
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	32	0	4	36	1	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			32		76	32
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			32		76	32
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			1580		925	1042

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	32	40	9
Volume Left	0	4	1
Volume Right	0	0	8
cSH	1700	1580	1027
Volume to Capacity	0.02	0.00	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.7	8.5
Lane LOS		A	A
Approach Delay (s)	0.0	0.7	8.5
Approach LOS			A

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	15.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
1: 50th St & F St

PM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	1	25	0	13	45	14	1	56	12	13	31	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1	25	0	13	45	14	1	56	12	13	31	3

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	26	72	69	47
Volume Left (vph)	1	13	1	13
Volume Right (vph)	0	14	12	3
Hadj (s)	0.01	-0.06	-0.07	0.04
Departure Headway (s)	4.2	4.1	4.1	4.2
Degree Utilization, x	0.03	0.08	0.08	0.06
Capacity (veh/h)	820	847	849	827
Control Delay (s)	7.4	7.5	7.4	7.5
Approach Delay (s)	7.4	7.5	7.4	7.5
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.5		
Level of Service	A		
Intersection Capacity Utilization	25.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
2: 51st St & F St

PM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	44	2	10	39	9	14	24	13	7	17	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	7	44	2	10	39	9	14	24	13	7	17	18
Pedestrians		2			1			10				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		4.0			4.0			4.0				
Percent Blockage		0			0			1				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	48			56			161	137	56	148	134	46
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	48			56			161	137	56	148	134	46
tC, single (s)	4.1			4.1			7.1	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	100			99			98	97	99	99	98	98
cM capacity (veh/h)	1559			1549			762	739	990	777	743	1022

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	53	58	51	42
Volume Left	7	10	14	7
Volume Right	2	9	13	18
cSH	1559	1549	797	848
Volume to Capacity	0.00	0.01	0.06	0.05
Queue Length 95th (ft)	0	0	5	4
Control Delay (s)	1.0	1.3	9.8	9.5
Lane LOS	A	A	A	A
Approach Delay (s)	1.0	1.3	9.8	9.5
Approach LOS			A	A

Intersection Summary			
Average Delay	5.0		
Intersection Capacity Utilization	17.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: 53rd St & F St

PM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	1	41	28	35	53	1	39	2	13	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1	41	28	35	53	1	39	2	13	0	0	0

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	70	89	54
Volume Left (vph)	1	35	39
Volume Right (vph)	28	1	13
Hadj (s)	-0.21	0.12	0.00
Departure Headway (s)	3.9	4.2	4.2
Degree Utilization, x	0.08	0.10	0.06
Capacity (veh/h)	900	838	812
Control Delay (s)	7.2	7.7	7.5
Approach Delay (s)	7.2	7.7	7.5
Approach LOS	A	A	A

Intersection Summary			
Delay	7.5		
Level of Service	A		
Intersection Capacity Utilization	29.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
4: Elvas Ave & F St

PM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	6	74	72	404	405	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	74	72	404	405	4
Pedestrians	7				1	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	4.0				4.0	
Percent Blockage	1				0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	761	212	416			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	761	212	416			
tC, single (s)	6.8	6.9	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	91	94			
cM capacity (veh/h)	321	789	1112			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	80	207	269	270	139
Volume Left	6	72	0	0	0
Volume Right	74	0	0	0	4
cSH	711	1112	1700	1700	1700
Volume to Capacity	0.11	0.06	0.16	0.16	0.08
Queue Length 95th (ft)	9	5	0	0	0
Control Delay (s)	10.7	3.3	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	10.7	1.4		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	39.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
5: 50th St & H St

PM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	33	612	11	10	599	30	3	12	6	14	7	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	33	612	11	10	599	30	3	12	6	14	7	18
Pedestrians					2			8			20	
Lane Width (ft)					12.0			12.0			12.0	
Walking Speed (ft/s)					4.0			4.0			4.0	
Percent Blockage					0			1			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					1182							
pX, platoon unblocked												
vC, conflicting volume	649			631			1347	1360	628	1352	1351	634
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	649			631			1347	1360	628	1352	1351	634
tC, single (s)	4.1			4.1			7.1	6.5	6.4	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.5	3.5	4.0	3.3
p0 queue free %	96			99			97	91	99	87	95	96
cM capacity (veh/h)	931			955			113	140	453	110	141	475

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	656	639	21	39
Volume Left	33	10	3	14
Volume Right	11	30	6	18
cSH	931	955	167	182
Volume to Capacity	0.04	0.01	0.13	0.21
Queue Length 95th (ft)	3	1	11	20
Control Delay (s)	0.9	0.3	29.6	30.1
Lane LOS	A	A	D	D
Approach Delay (s)	0.9	0.3	29.6	30.1
Approach LOS			D	D

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: 51st St & H St

PM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	11	597	21	24	562	22	20	21	45	11	9	44
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	11	597	21	24	562	22	20	21	45	11	9	44
Pedestrians								11			23	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								4.0			4.0	
Percent Blockage								1			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					889							
pX, platoon unblocked												
vC, conflicting volume	607			629			1310	1296	618	1329	1295	596
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	607			629			1310	1296	618	1329	1295	596
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			97			82	86	91	89	94	91
cM capacity (veh/h)	925			954			113	153	488	101	153	498

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	629	608	86	64
Volume Left	11	24	20	11
Volume Right	21	22	45	44
cSH	925	954	212	250
Volume to Capacity	0.01	0.03	0.41	0.26
Queue Length 95th (ft)	1	2	46	25
Control Delay (s)	0.3	0.7	33.2	24.3
Lane LOS	A	A	D	C
Approach Delay (s)	0.3	0.7	33.2	24.3
Approach LOS			D	C

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
7: 53rd St & H St

PM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	608	6	9	528	35	36	20	72	27	3	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			3.5			3.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.92			0.97	
Flt Protected		1.00			1.00			0.99			0.96	
Satd. Flow (prot)		1858			1846			1697			1751	
Flt Permitted		0.99			0.99			0.90			0.85	
Satd. Flow (perm)		1840			1833			1553			1538	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	13	608	6	9	528	35	36	20	72	27	3	7
RTOR Reduction (vph)	0	0	0	0	3	0	0	61	0	0	6	0
Lane Group Flow (vph)	0	627	0	0	569	0	0	67	0	0	31	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)		32.4			32.4			7.1			7.1	
Effective Green, g (s)		32.4			32.4			7.1			7.1	
Actuated g/C Ratio		0.69			0.69			0.15			0.15	
Clearance Time (s)		4.0			4.0			3.5			3.5	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1268			1263			234			232	
v/s Ratio Prot												
v/s Ratio Perm		c0.34			0.31			c0.04			0.02	
v/c Ratio		0.49			0.45			0.29			0.13	
Uniform Delay, d1		3.4			3.3			17.7			17.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.4			0.3			0.9			0.4	
Delay (s)		3.9			3.6			18.6			17.6	
Level of Service		A			A			B			B	
Approach Delay (s)		3.9			3.6			18.6			17.6	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	5.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	47.0	Sum of lost time (s)	7.5
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
8: Coloma Way & D St

PM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	6	25	11	2	31	2	14	23	1	2	16	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	25	11	2	31	2	14	23	1	2	16	10

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	42	35	38	28
Volume Left (vph)	6	2	14	2
Volume Right (vph)	11	2	1	10
Hadj (s)	-0.09	0.15	0.06	0.04
Departure Headway (s)	4.0	4.2	4.2	4.1
Degree Utilization, x	0.05	0.04	0.04	0.03
Capacity (veh/h)	880	831	839	846
Control Delay (s)	7.2	7.4	7.3	7.3
Approach Delay (s)	7.2	7.4	7.3	7.3
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.3		
Level of Service	A		
Intersection Capacity Utilization	17.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
10: Elvas Ave & C St

PM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	3	46	64	333	347	8
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	3	46	64	333	347	8
Pedestrians	7					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	819	358	362			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	819	358	362			
tC, single (s)	6.4	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.2			
p0 queue free %	99	93	95			
cM capacity (veh/h)	327	671	1201			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	49	397	355
Volume Left	3	64	0
Volume Right	46	0	8
cSH	631	1201	1700
Volume to Capacity	0.08	0.05	0.21
Queue Length 95th (ft)	6	4	0
Control Delay (s)	11.2	1.8	0.0
Lane LOS	B	A	
Approach Delay (s)	11.2	1.8	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	53.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
11: Coloma Way/50th St & E St

PM Peak - Near Term With Project
7/11/2013

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	18	2	51	25	3	27
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	18	2	51	25	3	27
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	98	64			77	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	98	64			77	
tC, single (s)	6.4	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	98	100			100	
cM capacity (veh/h)	904	977			1533	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	20	76	30
Volume Left	18	0	3
Volume Right	2	25	0
cSH	911	1700	1533
Volume to Capacity	0.02	0.04	0.00
Queue Length 95th (ft)	2	0	0
Control Delay (s)	9.0	0.0	0.7
Lane LOS	A		A
Approach Delay (s)	9.0	0.0	0.7
Approach LOS	A		

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	14.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
14: F St & Middle Hospital Dwy

PM Peak - Near Term With Project
7/11/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	13	45	52	24	17	9
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	13	45	52	24	17	9
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	80				139	68
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	80				139	68
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				98	99
cM capacity (veh/h)	1526				837	984

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	58	76	26
Volume Left	13	0	17
Volume Right	0	24	9
cSH	1526	1700	883
Volume to Capacity	0.01	0.04	0.03
Queue Length 95th (ft)	1	0	2
Control Delay (s)	1.7	0.0	9.2
Lane LOS	A		A
Approach Delay (s)	1.7	0.0	9.2
Approach LOS			A

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	19.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
15: 53rd St & 51st St/D St

PM Peak - Near Term With Project
7/11/2013

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	37	1	10	40	1	8
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	37	1	10	40	1	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			38		98	38
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			38		98	38
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	99
cM capacity (veh/h)			1572		896	1035

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	38	50	9
Volume Left	0	10	1
Volume Right	1	0	8
cSH	1700	1572	1017
Volume to Capacity	0.02	0.01	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	1.5	8.6
Lane LOS		A	A
Approach Delay (s)	0.0	1.5	8.6
Approach LOS			A

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	19.3%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix 8 Existing No Hospital Alternative LOS Worksheets

HCM Unsignalized Intersection Capacity Analysis
1: 50th St & F St

AM Peak - Without Hospital
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	1	16	4	5	12	1	0	8	7	17	19	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1	16	4	5	12	1	0	8	7	17	19	2

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	21	18	15	38
Volume Left (vph)	1	5	0	17
Volume Right (vph)	4	1	7	2
Hadj (s)	-0.10	0.14	-0.24	0.15
Departure Headway (s)	3.9	4.2	3.8	4.1
Degree Utilization, x	0.02	0.02	0.02	0.04
Capacity (veh/h)	898	846	928	855
Control Delay (s)	7.0	7.3	6.8	7.3
Approach Delay (s)	7.0	7.3	6.8	7.3
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.2		
Level of Service	A		
Intersection Capacity Utilization	20.1%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
2: 51st St & F St

AM Peak - Without Hospital
3/22/2013

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	37	6	7	14	4	11
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	37	6	7	14	4	11
Pedestrians				3	2	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				4.0	4.0	
Percent Blockage				0	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			45		70	45
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			45		70	45
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			1573		934	1021

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	43	21	15
Volume Left	0	7	4
Volume Right	6	0	11
cSH	1700	1573	996
Volume to Capacity	0.03	0.00	0.02
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	2.5	8.7
Lane LOS		A	A
Approach Delay (s)	0.0	2.5	8.7
Approach LOS			A

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	17.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: 53rd St & F St

AM Peak - Without Hospital
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	14	14	22	18	18	26	10	18	12	0	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	14	14	22	18	18	26	10	18	12	0	2	1

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	50	62	40	3
Volume Left (vph)	14	18	10	0
Volume Right (vph)	22	26	12	1
Hadj (s)	-0.18	-0.17	-0.13	-0.20
Departure Headway (s)	3.9	3.9	4.0	4.0
Degree Utilization, x	0.05	0.07	0.04	0.00
Capacity (veh/h)	912	914	866	876
Control Delay (s)	7.1	7.1	7.2	7.0
Approach Delay (s)	7.1	7.1	7.2	7.0
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.1		
Level of Service	A		
Intersection Capacity Utilization	23.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
4: Elvas Ave & F St

AM Peak - Without Hospital
3/22/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	4	26	33	357	362	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	4	26	33	357	362	11
Pedestrians	5					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	617	192	378			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	617	192	378			
tC, single (s)	6.8	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	97	97			
cM capacity (veh/h)	413	805	1165			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	30	152	238	241	132
Volume Left	4	33	0	0	0
Volume Right	26	0	0	0	11
cSH	714	1165	1700	1700	1700
Volume to Capacity	0.04	0.03	0.14	0.14	0.08
Queue Length 95th (ft)	3	2	0	0	0
Control Delay (s)	10.3	2.0	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	10.3	0.8		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	35.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
5: 50th St & H St

AM Peak - Without Hospital
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	474	6	7	579	6	3	0	10	7	5	22
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	4	474	6	7	579	6	3	0	10	7	5	22
Pedestrians		1			1			6			12	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		0			0			1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					1182							
pX, platoon unblocked												
vC, conflicting volume	597			486			1112	1102	484	1104	1102	595
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	597			486			1112	1102	484	1104	1102	595
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			98	100	98	96	98	96
cM capacity (veh/h)	965			1012			172	208	583	181	208	502

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	484	592	13	34
Volume Left	4	7	3	7
Volume Right	6	6	10	22
cSH	965	1012	376	319
Volume to Capacity	0.00	0.01	0.03	0.11
Queue Length 95th (ft)	0	1	3	9
Control Delay (s)	0.1	0.2	14.9	17.6
Lane LOS	A	A	B	C
Approach Delay (s)	0.1	0.2	14.9	17.6
Approach LOS			B	C

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: 51st St & H St

AM Peak - Without Hospital
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	467	16	25	573	3	18	5	27	7	6	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	4	467	16	25	573	3	18	5	27	7	6	6
Pedestrians								4			9	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								4.0			4.0	
Percent Blockage								0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					889							
pX, platoon unblocked												
vC, conflicting volume	585			487			1120	1122	479	1146	1128	584
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	585			487			1120	1122	479	1146	1128	584
tC, single (s)	4.1			4.1			7.2	6.6	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.1	3.4	3.5	4.0	3.3
p0 queue free %	100			98			89	97	95	96	97	99
cM capacity (veh/h)	992			1083			165	192	575	160	198	512

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	487	601	50	19
Volume Left	4	25	18	7
Volume Right	16	3	27	6
cSH	992	1083	274	222
Volume to Capacity	0.00	0.02	0.18	0.09
Queue Length 95th (ft)	0	2	16	7
Control Delay (s)	0.1	0.6	21.0	22.8
Lane LOS	A	A	C	C
Approach Delay (s)	0.1	0.6	21.0	22.8
Approach LOS			C	C

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	57.2%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
7: 53rd St & H St

AM Peak - Without Hospital
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	432	11	11	479	13	9	9	16	7	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			3.5			3.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			0.94			0.96	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		1853			1854			1722			1755	
Flt Permitted		0.98			0.99			0.90			0.95	
Satd. Flow (perm)		1813			1840			1578			1699	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	21	432	11	11	479	13	9	9	16	7	4	4
RTOR Reduction (vph)	0	1	0	0	1	0	0	15	0	0	4	0
Lane Group Flow (vph)	0	463	0	0	502	0	0	19	0	0	11	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)		35.6			35.6			3.1			3.1	
Effective Green, g (s)		35.6			35.6			3.1			3.1	
Actuated g/C Ratio		0.77			0.77			0.07			0.07	
Clearance Time (s)		4.0			4.0			3.5			3.5	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1397			1417			105			114	
v/s Ratio Prot												
v/s Ratio Perm		0.26			c0.27			c0.01			0.01	
v/c Ratio		0.33			0.35			0.18			0.10	
Uniform Delay, d1		1.6			1.7			20.4			20.2	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			0.2			1.1			0.5	
Delay (s)		1.8			1.9			21.5			20.8	
Level of Service		A			A			C			C	
Approach Delay (s)		1.8			1.9			21.5			20.8	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	2.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	46.2	Sum of lost time (s)	7.5
Intersection Capacity Utilization	45.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
8: Coloma Way & D St

AM Peak - Without Hospital
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	2	23	21	1	10	0	3	6	1	2	13	11
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	2	23	21	1	10	0	3	6	1	2	13	11

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	46	11	10	26
Volume Left (vph)	2	1	3	2
Volume Right (vph)	21	0	1	11
Hadj (s)	-0.27	0.17	0.00	-0.24
Departure Headway (s)	3.7	4.2	4.0	3.8
Degree Utilization, x	0.05	0.01	0.01	0.03
Capacity (veh/h)	952	846	866	931
Control Delay (s)	6.9	7.2	7.1	6.9
Approach Delay (s)	6.9	7.2	7.1	6.9
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.0		
Level of Service	A		
Intersection Capacity Utilization	17.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
10: Elvas Ave & C St

AM Peak - Without Hospital
3/22/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	6	58	24	348	307	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	58	24	348	307	2
Pedestrians	7					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	711	315	316			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	711	315	316			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	92	98			
cM capacity (veh/h)	392	726	1248			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	64	372	309
Volume Left	6	24	0
Volume Right	58	0	2
cSH	672	1248	1700
Volume to Capacity	0.10	0.02	0.18
Queue Length 95th (ft)	8	1	0
Control Delay (s)	10.9	0.7	0.0
Lane LOS	B	A	
Approach Delay (s)	10.9	0.7	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
11: Coloma Way/50th St & E St

AM Peak - Without Hospital
3/22/2013

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	8	3	7	2	1	38
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	8	3	7	2	1	38
Pedestrians	8					1
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	4.0					4.0
Percent Blockage	1					0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	56	17			17	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	56	17			17	
tC, single (s)	6.5	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	99	100			100	
cM capacity (veh/h)	930	1060			1603	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	11	9	39
Volume Left	8	0	1
Volume Right	3	2	0
cSH	962	1700	1603
Volume to Capacity	0.01	0.01	0.00
Queue Length 95th (ft)	1	0	0
Control Delay (s)	8.8	0.0	0.2
Lane LOS	A		A
Approach Delay (s)	8.8	0.0	0.2
Approach LOS	A		

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	16.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
12: F St & W Hospital Dwy

AM Peak - Without Hospital
3/22/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	47	33	0	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	47	33	0	0	0
Pedestrians		7			16	
Lane Width (ft)		12.0			0.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		1			0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	49				96	56
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	49				96	56
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1571				908	1010

Direction, Lane #	EB 1	WB 1
Volume Total	47	33
Volume Left	0	0
Volume Right	0	0
cSH	1571	1700
Volume to Capacity	0.00	0.02
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	19.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
13: F St & E Hospital Dwy

AM Peak - Without Hospital
3/22/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	68	11	0	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	68	11	0	0	0
Pedestrians			1		8	
Lane Width (ft)			12.0		0.0	
Walking Speed (ft/s)			4.0		4.0	
Percent Blockage			0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	19				88	19
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	19				88	19
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1611				917	1065

Direction, Lane #	EB 1	WB 1
Volume Total	68	11
Volume Left	0	0
Volume Right	0	0
cSH	1611	1700
Volume to Capacity	0.00	0.01
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	16.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
14: F St & Middle Hospital Dwy

AM Peak - Without Hospital
3/22/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	59	25	0	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	59	25	0	0	0
Pedestrians		1			10	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		0			1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	35				94	36
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	35				94	36
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1576				893	1021

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	59	25	0
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1576	1700	1700
Volume to Capacity	0.00	0.01	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s)	0.0	0.0	0.0
Approach LOS			A

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	16.5%	ICU Level of Service	A
Analysis Period (min)	15		

SimTraffic Performance Report
AM Peak - Without Hospital

3/22/2013

9: 51st St & C St Performance by movement

Movement	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Total Del/Veh (s)	4.0	4.7	0.2	0.2	0.1	1.1	1.1	3.3	4.6	2.4

HCM Unsignalized Intersection Capacity Analysis
1: 50th St & F St

PM Peak - WIthout Hospital
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	14	0	6	18	11	1	38	3	11	18	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	14	0	6	18	11	1	38	3	11	18	2

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	14	35	42	31
Volume Left (vph)	0	6	1	11
Volume Right (vph)	0	11	3	2
Hadj (s)	0.00	-0.12	-0.01	0.06
Departure Headway (s)	4.1	3.9	4.0	4.1
Degree Utilization, x	0.02	0.04	0.05	0.04
Capacity (veh/h)	858	890	871	860
Control Delay (s)	7.2	7.1	7.2	7.3
Approach Delay (s)	7.2	7.1	7.2	7.3
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.2		
Level of Service	A		
Intersection Capacity Utilization	22.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
2: 51st St & F St

PM Peak - WIthout Hospital
3/22/2013

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	29	2	5	24	11	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	29	2	5	24	11	7
Pedestrians	2			1	10	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	0			0	1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			41		76	41
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			41		76	41
tC, single (s)			4.1		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.4
p0 queue free %			100		99	99
cM capacity (veh/h)			1568		920	1009

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	31	29	18
Volume Left	0	5	11
Volume Right	2	0	7
cSH	1700	1568	953
Volume to Capacity	0.02	0.00	0.02
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	1.3	8.9
Lane LOS		A	A
Approach Delay (s)	0.0	1.3	8.9
Approach LOS			A

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	16.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: 53rd St & F St

PM Peak - WIthout Hospital
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	1	27	6	28	31	1	13	2	13	3	7	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1	27	6	28	31	1	13	2	13	3	7	2

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	34	60	28	12
Volume Left (vph)	1	28	13	3
Volume Right (vph)	6	1	13	2
Hadj (s)	-0.06	0.13	-0.18	-0.04
Departure Headway (s)	4.0	4.1	3.9	4.1
Degree Utilization, x	0.04	0.07	0.03	0.01
Capacity (veh/h)	886	855	883	855
Control Delay (s)	7.1	7.5	7.1	7.1
Approach Delay (s)	7.1	7.5	7.1	7.1
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.3		
Level of Service	A		
Intersection Capacity Utilization	25.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
4: Elvas Ave & F St

PM Peak - WIthout Hospital
3/22/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	6	60	52	398	401	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	60	52	398	401	4
Pedestrians	7				1	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	4.0				4.0	
Percent Blockage	1				0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	714	210	412			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	714	210	412			
tC, single (s)	6.8	6.9	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	92	95			
cM capacity (veh/h)	351	792	1116			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	66	185	265	267	138
Volume Left	6	52	0	0	0
Volume Right	60	0	0	0	4
cSH	710	1116	1700	1700	1700
Volume to Capacity	0.09	0.05	0.16	0.16	0.08
Queue Length 95th (ft)	8	4	0	0	0
Control Delay (s)	10.6	2.7	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	10.6	1.1		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	38.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
5: 50th St & H St

PM Peak - WIthout Hospital
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	21	574	11	10	525	24	3	3	6	10	1	9
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	21	574	11	10	525	24	3	3	6	10	1	9
Pedestrians					2			8			20	
Lane Width (ft)					12.0			12.0			12.0	
Walking Speed (ft/s)					4.0			4.0			4.0	
Percent Blockage					0			1			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					1182							
pX, platoon unblocked												
vC, conflicting volume	569			593			1196	1218	590	1208	1212	557
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	569			593			1196	1218	590	1208	1212	557
tC, single (s)	4.1			4.1			7.1	6.5	6.4	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.5	3.5	4.0	3.3
p0 queue free %	98			99			98	98	99	93	99	98
cM capacity (veh/h)	996			986			153	172	477	148	174	525

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	606	559	12	20
Volume Left	21	10	3	10
Volume Right	11	24	6	9
cSH	996	986	242	221
Volume to Capacity	0.02	0.01	0.05	0.09
Queue Length 95th (ft)	2	1	4	7
Control Delay (s)	0.6	0.3	20.6	22.9
Lane LOS	A	A	C	C
Approach Delay (s)	0.6	0.3	20.6	22.9
Approach LOS			C	C

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	52.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: 51st St & H St

PM Peak - WIthout Hospital
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	562	21	22	525	9	20	11	43	1	2	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	4	562	21	22	525	9	20	11	43	1	2	1
Pedestrians								11			23	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								4.0			4.0	
Percent Blockage								1			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					889							
pX, platoon unblocked												
vC, conflicting volume	557			594			1167	1192	584	1226	1198	552
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	557			594			1167	1192	584	1226	1198	552
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			88	94	92	99	99	100
cM capacity (veh/h)	965			983			162	178	511	129	177	527

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	587	556	74	4
Volume Left	4	22	20	1
Volume Right	21	9	43	1
cSH	965	983	275	191
Volume to Capacity	0.00	0.02	0.27	0.02
Queue Length 95th (ft)	0	2	27	2
Control Delay (s)	0.1	0.6	22.9	24.3
Lane LOS	A	A	C	C
Approach Delay (s)	0.1	0.6	22.9	24.3
Approach LOS			C	C

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	55.8%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
7: 53rd St & H St

PM Peak - WIthout Hospital
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	564	6	9	479	10	36	19	72	6	2	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			3.5			3.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			0.92			0.94	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		1858			1856			1696			1711	
Flt Permitted		0.99			0.99			0.91			0.88	
Satd. Flow (perm)		1841			1842			1563			1534	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	13	564	6	9	479	10	36	19	72	6	2	7
RTOR Reduction (vph)	0	1	0	0	1	0	0	61	0	0	6	0
Lane Group Flow (vph)	0	582	0	0	497	0	0	66	0	0	9	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)		30.9			30.9			7.1			7.1	
Effective Green, g (s)		30.9			30.9			7.1			7.1	
Actuated g/C Ratio		0.68			0.68			0.16			0.16	
Clearance Time (s)		4.0			4.0			3.5			3.5	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1250			1250			243			239	
v/s Ratio Prot												
v/s Ratio Perm		c0.32			0.27			c0.04			0.01	
v/c Ratio		0.47			0.40			0.27			0.04	
Uniform Delay, d1		3.4			3.2			16.9			16.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.4			0.3			0.8			0.1	
Delay (s)		3.8			3.5			17.8			16.4	
Level of Service		A			A			B			B	
Approach Delay (s)		3.8			3.5			17.8			16.4	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	5.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	45.5	Sum of lost time (s)	7.5
Intersection Capacity Utilization	52.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
8: Coloma Way & D St

PM Peak - WIthout Hospital
3/22/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	6	24	10	2	20	2	13	23	1	2	16	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	24	10	2	20	2	13	23	1	2	16	10

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	40	24	37	28
Volume Left (vph)	6	2	13	2
Volume Right (vph)	10	2	1	10
Hadj (s)	-0.08	0.18	0.05	0.04
Departure Headway (s)	4.0	4.3	4.1	4.1
Degree Utilization, x	0.04	0.03	0.04	0.03
Capacity (veh/h)	881	827	848	855
Control Delay (s)	7.2	7.4	7.3	7.3
Approach Delay (s)	7.2	7.4	7.3	7.3
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.3		
Level of Service	A		
Intersection Capacity Utilization	17.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
10: Elvas Ave & C St

PM Peak - WIthout Hospital
3/22/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	1	42	48	333	347	6
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1	42	48	333	347	6
Pedestrians	7					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	786	357	360			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	786	357	360			
tC, single (s)	6.4	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.2			
p0 queue free %	100	94	96			
cM capacity (veh/h)	347	672	1203			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	43	381	353
Volume Left	1	48	0
Volume Right	42	0	6
cSH	658	1203	1700
Volume to Capacity	0.07	0.04	0.21
Queue Length 95th (ft)	5	3	0
Control Delay (s)	10.9	1.4	0.0
Lane LOS	B	A	
Approach Delay (s)	10.9	1.4	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	52.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
11: Coloma Way/50th St & E St

PM Peak - WIthout Hospital
3/22/2013

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	2	1	51	3	2	27
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	2	1	51	3	2	27
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	84	54			55	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	84	54			55	
tC, single (s)	6.4	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	920	991			1562	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	3	54	29
Volume Left	2	0	2
Volume Right	1	3	0
cSH	942	1700	1562
Volume to Capacity	0.00	0.03	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	8.8	0.0	0.5
Lane LOS	A		A
Approach Delay (s)	8.8	0.0	0.5
Approach LOS	A		

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	13.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
12: F St & W Hospital Dwy

PM Peak - WIthout Hospital
3/22/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	35	28	0	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	35	28	0	0	0
Pedestrians		2	2		21	
Lane Width (ft)		12.0	12.0		0.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	49				86	51
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	49				86	51
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1571				919	1021

Direction, Lane #	EB 1	WB 1
Volume Total	35	28
Volume Left	0	0
Volume Right	0	0
cSH	1571	1700
Volume to Capacity	0.00	0.02
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	19.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
13: F St & E Hospital Dwy

PM Peak - WIthout Hospital
3/22/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	39	46	0	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	39	46	0	0	0
Pedestrians					23	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	69				108	69
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	69				108	69
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1545				894	1000

Direction, Lane #	EB 1	WB 1
Volume Total	39	46
Volume Left	0	0
Volume Right	0	0
cSH	1545	1700
Volume to Capacity	0.00	0.03
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	14.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
14: F St & Middle Hospital Dwy

PM Peak - WIthout Hospital
3/22/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	36	40	0	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	36	40	0	0	0
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	44				80	44
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	44				80	44
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1572				912	1014

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	36	40	0
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1572	1700	1700
Volume to Capacity	0.00	0.02	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s)	0.0	0.0	0.0
Approach LOS			A

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	14.6%	ICU Level of Service	A
Analysis Period (min)	15		

9: 51st St & C St Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.1	0.1
Total Del/Veh (s)	5.5	2.5	0.5	0.6	0.4	2.7	1.2	1.2	4.7	4.6	2.3	2.0

Appendix 9 Signal Warrant Analysis Worksheets

exam
Existing AM Tue Mar 26, 2013 10:30:24 Page 1-1

Kittelson & Associates, Inc.
Sutter Memorial - SAC, CA
Year 2012 Existing Traffic Conditions, Weekday AM Peak Hour

Scenario Report

Scenario:	Existing AM
Command:	Existing AM
Volume:	Ex AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	None
Trip Distribution:	None
Paths:	None
Routes:	Default Route
Configuration:	Default Configuration

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Existing AM Tue Mar 26, 2013 10:30:25 Page 2-1

Kittelson & Associates, Inc.
Page 1

exam
Sutter Memorial - SAC, CA
Year 2012 Existing Traffic Conditions, Weekday AM Peak Hour

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 50th St/F St	No	No
# 2 51st St/F St	No / No	No / No
# 3 53rd St/F St	No	No
# 4 Elvas Ave/F St	No / No	No / No
# 5 50th St/H St	No / No	No / No
# 6 51st St/H St	No / No	No / No
# 8 Coloma Way/D St	No	No
# 9 51st St/C St	No / No	No / No
# 10 Elvas Ave/C St	No / No	No / No
# 11 Coloma Way/50th St/E St	No / No	No / No

exam

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1 50th St/F St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Stop Sign					Stop Sign				
Lanes:	0	0	0	1	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	0		28		21	26		28		2	3		48		4	8		21		16

Major Street Volume: 105
Minor Approach Volume: 55
Minor Approach Volume Threshold: 820

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Kittelson & Associates, Inc.
Sutter Memorial - SAC, CA
Year 2012 Existing Traffic Conditions, Weekday AM Peak Hour

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1 50th St/F St

exam

```
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:    0   28    21    26   28     2     3   48     4     8   21    16
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             105
Minor Approach Volume:           55
Minor Approach Volume Threshold: 820
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```



```
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
```

```
                                        exam
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:       6    0    46     0    0     0     0   91     7    15   40     0
ApproachDel:       3.2           xxxxxx              0.0              0.7
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=52]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=205]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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```

```
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Existing AM                Tue Mar 26, 2013 10:30:25                 Page 3-4
-------------------------------------------------------------------------------
                          Kittelson & Associates, Inc.
                            Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
                                        Page 5
```

```
                                        exam
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:       6    0    46     0    0     0     0   91     7    15   40     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             153
Minor Approach Volume:           52
Minor Approach Volume Threshold: 719
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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```



```
                          Kittelson & Associates, Inc.
                            Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:       6    0    46     0    0     0     0   91     7    15   40     0
```

```
                                        exam
ApproachDel:       3.2           xxxxxx              0.0              0.7
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=52]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=205]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
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Existing AM                Tue Mar 26, 2013 10:30:25                Page 3-6
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:       6    0    46     0    0     0     0   91     7    15   40     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             153
Minor Approach Volume:           52
                                      Page 7
```

exam

Minor Approach Volume Threshold: 719

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Kittelson & Associates, Inc.
Sutter Memorial - SAC, CA
Year 2012 Existing Traffic Conditions, Weekday AM Peak Hour

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #3 53rd St/F St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Initial Vol:	14	74	12	18	46	5	58	47	24	18	42	105

Major Street Volume: 294
Minor Approach Volume: 100
Minor Approach Volume Threshold: 546

SIGNAL WARRANT DISCLAIMER

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This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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```
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Existing AM                Tue Mar 26, 2013 10:30:25                 Page 3-8
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #3 53rd St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   14   74    12    18   46     5    58   47    24    18   42   105
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             294
Minor Approach Volume:           100
Minor Approach Volume Threshold: 546
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

exam
are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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```
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Existing AM                Tue Mar 26, 2013 10:30:25                 Page 3-9
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:     152  357     0     0  362    11     4    0    83     0    0     0
ApproachDel:       1.1              0.0              4.2           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=87]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=969]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
```

exam

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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```
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Existing AM                 Tue Mar 26, 2013 10:30:25                Page 3-10
-------------------------------------------------------------------------------
                          Kittelson & Associates, Inc.
                            Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:     152  357     0     0  362    11     4    0    83     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             882
Minor Approach Volume:           87
Minor Approach Volume Threshold: 328
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
```

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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exam
the scope of this software, may yield different results.

```
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Existing AM                Tue Mar 26, 2013 10:30:25                Page 3-11
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:     152  357     0     0  362    11     4    0    83     0    0     0
ApproachDel:       1.1              0.0              4.2           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=87]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=969]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).
```

exam

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

```
  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND♀
Existing AM                Tue Mar 26, 2013 10:30:25                Page 3-12
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:     152  357     0     0  362    11     4    0    83     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             882
Minor Approach Volume:           87
Minor Approach Volume Threshold: 328
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

exam

```
  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND♀
Existing AM                 Tue Mar 26, 2013 10:30:25                 Page 3-13
-------------------------------------------------------------------------------
                          Kittelson & Associates, Inc.
                            Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    0    11    10    7    34    37  544     6     8  613    10
ApproachDel:       8.6             10.4              0.3              0.0
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=14]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1283]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=51]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1283]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction. Consideration of the other signal warrants, which is beyond
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Existing AM                Tue Mar 26, 2013 10:30:25                Page 3-14
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    0    11    10    7    34    37  544     6     8  613    10
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1218
Minor Approach Volume:           51
Minor Approach Volume Threshold: 167
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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Existing AM                Tue Mar 26, 2013 10:30:25                Page 3-15
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    0    11    10    7    34    37  544     6     8  613    10
ApproachDel:       8.6             10.4              0.3              0.0
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=14]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1283]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=51]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1283]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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Existing AM                 Tue Mar 26, 2013 10:30:25                Page 3-16
-------------------------------------------------------------------------------
                          Kittelson & Associates, Inc.
                            Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    0    11    10    7    34    37  544     6     8  613    10
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1218
Minor Approach Volume:           51
Minor Approach Volume Threshold: 167
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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Existing AM                Tue Mar 26, 2013 10:30:25                Page 3-17
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      20   11    30     8    8    14    34  512    16    28  604     4
ApproachDel:      13.7             12.7              0.3              0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=61]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1288]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=30]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1288]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Existing AM                Tue Mar 26, 2013 10:30:25                Page 3-18
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      20   11    30     8    8    14    34  512    16    28  604     4
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1198
Minor Approach Volume:           61
Minor Approach Volume Threshold: 171
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Existing AM                Tue Mar 26, 2013 10:30:25                Page 3-19
-------------------------------------------------------------------------------
                          Kittelson & Associates, Inc.
                            Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      20   11    30     8    8    14    34  512    16    28  604     4
ApproachDel:      13.7             12.7               0.3              0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=61]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1288]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=30]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1288]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
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Kittelson & Associates, Inc.
Sutter Memorial - SAC, CA
Year 2012 Existing Traffic Conditions, Weekday AM Peak Hour

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 51st St/H St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Adj Vol.:	20	11	30	8	8	14	34	512	16	28	604	4

Major Street Volume: 1198
Minor Approach Volume: 61
Minor Approach Volume Threshold: 171

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Sutter Memorial - SAC, CA
Year 2012 Existing Traffic Conditions, Weekday AM Peak Hour

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Coloma Way/D St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 1 0 0 0		
Initial Vol:	9	13	1	2	20	11	2	23	29	1	10	0

Major Street Volume: 65
Minor Approach Volume: 33
Minor Approach Volume Threshold: 948

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Kittelson & Associates, Inc.
Sutter Memorial - SAC, CA
Year 2012 Existing Traffic Conditions, Weekday AM Peak Hour

exam

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #8 Coloma Way/D St

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Stop Sign					Stop Sign				
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	1	0	0	0
Initial Vol:	9		13		1	2		20		11	2		23		29	1		10		0

Major Street Volume: 65
Minor Approach Volume: 33
Minor Approach Volume Threshold: 948

SIGNAL WARRANT DISCLAIMER

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Kittelson & Associates, Inc.
Sutter Memorial - SAC, CA
Year 2012 Existing Traffic Conditions, Weekday AM Peak Hour

Peak Hour Delay Signal Warrant Report

****

Intersection #9 51st St/C St

```
                                        exam
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  1  0  0  0    0  0  1! 0  0
Adj Vol.:       0    9    26     8   20     0     1   18     0     9    5     2
ApproachDel:       2.9              3.6              0.1              1.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=35]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=98]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=28]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=98]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
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                                        exam
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  1  0  0  0    0  0  1! 0  0
Adj Vol.:       0    9    26     8   20     0     1   18     0     9    5     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             35
Minor Approach Volume:           35
Minor Approach Volume Threshold: 1114
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
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                                        exam
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  1  0  0  0    0  0  1! 0  0
Adj Vol.:       0    9    26     8   20     0     1   18     0     9    5     2
ApproachDel:       2.9              3.6              0.1              1.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=35]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=98]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=28]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=98]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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```



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--------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
--------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #9 51st St/C St
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  1  0  0  0    0  0  1! 0  0
Adj Vol.:       0    9    26     8   20     0     1   18     0     9    5     2
```

```
                                        exam
------------|---------------||---------------||---------------||---------------|
Major Street Volume:              35
Minor Approach Volume:            35
Minor Approach Volume Threshold: 1114
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Existing AM                Tue Mar 26, 2013 10:30:25                Page 3-27
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      26  348     0     0  307     2     7    0    64     0    0     0
ApproachDel:       0.2              0.0              4.5           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
                                     Page 27
```

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                                        exam
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=70]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=754]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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```

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Existing AM                Tue Mar 26, 2013 10:30:25                Page 3-28
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      26  348     0     0  307     2     7    0    64     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             683
Minor Approach Volume:           70
Minor Approach Volume Threshold: 321
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
```

exam

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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```
  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND♀
Existing AM                Tue Mar 26, 2013 10:30:25                Page 3-29
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      26  348     0     0  307     2     7    0    64     0    0     0
ApproachDel:       0.2              0.0              4.5           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=70]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=754]
   SUCCEED - Total volume greater than or equal to 650 for intersection
```

exam
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Kittelson & Associates, Inc.
Sutter Memorial - SAC, CA
Year 2012 Existing Traffic Conditions, Weekday AM Peak Hour

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #10 Elvas Ave/C St

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 1	0 0	0	0 0	0 1	0	0 0	1! 0	0	0 0	0 0	0
Adj Vol.:	26	348	0	0	307	2	7	0	64	0	0	0

Major Street Volume: 683
Minor Approach Volume: 70
Minor Approach Volume Threshold: 321

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

exam
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```
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Existing AM                 Tue Mar 26, 2013 10:30:25                Page 3-31
-------------------------------------------------------------------------------
                          Kittelson & Associates, Inc.
                            Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   12    34    18   38     0     0    0     0    29    0    12
ApproachDel:       0.0              0.7           xxxxxx              3.6
------------|---------------||---------------||---------------||---------------|
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=41]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=142]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

exam
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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```
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Existing AM                Tue Mar 26, 2013 10:30:25                Page 3-32
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   12    34    18   38     0     0    0     0    29    0    12
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             102
Minor Approach Volume:           41
Minor Approach Volume Threshold: 829
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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```

exam

```
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Existing AM                Tue Mar 26, 2013 10:30:25                Page 3-33
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday AM  Peak Hour
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   12    34    18   38     0     0    0     0    29    0    12
ApproachDel:       0.0              0.7           xxxxxx              3.6
------------|---------------||---------------||---------------||---------------|
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=41]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=142]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```

exam
the scope of this software, may yield different results.

Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND♀
Existing AM Tue Mar 26, 2013 10:30:25 Page 3-34

Kittelson & Associates, Inc.
Sutter Memorial - SAC, CA
Year 2012 Existing Traffic Conditions, Weekday AM Peak Hour

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #11 Coloma Way/50th St/E St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Adj Vol.:	0	12	34	18	38	0	0	0	0	29	0	12

Major Street Volume: 102
Minor Approach Volume: 41
Minor Approach Volume Threshold: 829

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Kittelson & Associates, Inc.
Sutter Memorial - SAC, CA
Year 2012 Existing Traffic Conditions, Weekday PM Peak Hour

Scenario Report

Scenario:	Existing PM
Command:	Existing PM
Volume:	Ex PM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	None
Trip Distribution:	None
Paths:	None
Routes:	Default Route
Configuration:	Default Configuration

expm
Sutter Memorial - SAC, CA
Year 2012 Existing Traffic Conditions, Weekday PM Peak Hour

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 50th St/F St	No	No
# 2 51st St/F St	No / No	No / No
# 3 53rd St/F St	No	No
# 4 Elvas Ave/F St	No / No	No / No
# 5 50th St/H St	No / No	No / No
# 6 51st St/H St	No / No	No / No
# 8 Coloma Way/D St	No	No
# 9 51st St/C St	No / No	No / No
# 10 Elvas Ave/C St	No / No	No / No
# 11 Coloma Way/50th St/E St	No / No	No / No

```
                                        expm
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #1 50th St/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1  0  0    0  0  1! 0  0
Initial Vol:    1   42     5    19   37     2     0   26     0    14   39    17
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             106
Minor Approach Volume:           70
Minor Approach Volume Threshold: 818
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

```
                                        expm
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1  0  0    0  0  1! 0  0
Initial Vol:    1   42     5    19   37     2     0   26     0    14   39    17
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             106
Minor Approach Volume:           70
Minor Approach Volume Threshold: 818
-------------------------------------------------------------------------------
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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

```
                                        expm
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:      12    0    18     0    0     0     0   50     3    12   59     0
ApproachDel:       3.4           xxxxxx              0.0              0.4
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=30]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=154]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```



```
-------------------------------------------------------------------------------
                          Kittelson & Associates, Inc.
                            Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
```

```
                                        expm
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:      12    0    18     0    0     0     0   50     3    12   59     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             124
Minor Approach Volume:           30
Minor Approach Volume Threshold: 776
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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```



```
                          Kittelson & Associates, Inc.
                            Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:      12    0    18     0    0     0     0   50     3    12   59     0
```

```
                                        expm
ApproachDel:       3.4           xxxxxx              0.0              0.4
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=30]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=154]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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```

```
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Existing PM                Tue Mar 26, 2013 10:31:47                 Page 3-6
-------------------------------------------------------------------------------
                          Kittelson & Associates, Inc.
                            Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:      12    0    18     0    0     0     0   50     3    12   59     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             124
Minor Approach Volume:           30
                                      Page 7
```

expm

Minor Approach Volume Threshold: 776

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Kittelson & Associates, Inc.
Sutter Memorial - SAC, CA
Year 2012 Existing Traffic Conditions, Weekday PM Peak Hour

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #3 53rd St/F St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Stop Sign					Stop Sign				
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	15		40		13	54		103		25	14		38		21	28		40		13

Major Street Volume: 250
Minor Approach Volume: 81
Minor Approach Volume Threshold: 589

SIGNAL WARRANT DISCLAIMER

expm

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```
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Existing PM                Tue Mar 26, 2013 10:31:47                 Page 3-8
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #3 53rd St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   15   40    13    54  103    25    14   38    21    28   40    13
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             250
Minor Approach Volume:           81
Minor Approach Volume Threshold: 589
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
                                     Page 9
```

expm
are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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```
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Existing PM                Tue Mar 26, 2013 10:31:47                 Page 3-9
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      80  398     0     0  401     4     7    0   134     0    0     0
ApproachDel:       0.6              0.0              4.4           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=141]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1024]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
```

expm

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

```
  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND♀
Existing PM                Tue Mar 26, 2013 10:31:47                Page 3-10
-------------------------------------------------------------------------------
                          Kittelson & Associates, Inc.
                            Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      80  398     0     0  401     4     7    0   134     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             883
Minor Approach Volume:           141
Minor Approach Volume Threshold: 328
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
```

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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expm
the scope of this software, may yield different results.

```
  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND♀
Existing PM                Tue Mar 26, 2013 10:31:47                Page 3-11
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      80  398     0     0  401     4     7    0   134     0    0     0
ApproachDel:       0.6              0.0              4.4           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=141]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1024]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).
```

expm

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```
  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND♀
Existing PM                Tue Mar 26, 2013 10:31:47                Page 3-12
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      80  398     0     0  401     4     7    0   134     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             883
Minor Approach Volume:           141
Minor Approach Volume Threshold: 328
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

expm

```
  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND♀
Existing PM                 Tue Mar 26, 2013 10:31:47                 Page 3-13
-------------------------------------------------------------------------------
                          Kittelson & Associates, Inc.
                            Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    3     7    18    4    30    28  600    11    11  605    26
ApproachDel:      12.5             13.1              0.2              0.1
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=13]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1345]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=52]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1345]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

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are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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```
  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND♀
Existing PM                Tue Mar 26, 2013 10:31:47                Page 3-14
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    3     7    18    4    30    28  600    11    11  605    26
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1281
Minor Approach Volume:           52
Minor Approach Volume Threshold: 153
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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```

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```
  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND♀
Existing PM                Tue Mar 26, 2013 10:31:47                Page 3-15
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    3     7    18    4    30    28  600    11    11  605    26
ApproachDel:      12.5             13.1              0.2              0.1
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=13]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1345]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=52]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1345]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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the scope of this software, may yield different results.

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  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND♀
Existing PM                Tue Mar 26, 2013 10:31:47                Page 3-16
-------------------------------------------------------------------------------
                          Kittelson & Associates, Inc.
                            Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    3     7    18    4    30    28  600    11    11  605    26
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1281
Minor Approach Volume:           52
Minor Approach Volume Threshold: 153
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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```
  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND♀
Existing PM                Tue Mar 26, 2013 10:31:47                Page 3-17
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      22   12    47     2    2     8    14  585    21    24  601     9
ApproachDel:      13.4             10.5              0.1              0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=81]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1348]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=12]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1348]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
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```

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```
  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND♀
Existing PM                Tue Mar 26, 2013 10:31:47                Page 3-18
-------------------------------------------------------------------------------
                          Kittelson & Associates, Inc.
                            Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      22   12    47     2    2     8    14  585    21    24  601     9
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1255
Minor Approach Volume:           81
Minor Approach Volume Threshold: 159
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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```

expm

```
  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND♀
Existing PM                Tue Mar 26, 2013 10:31:47                Page 3-19
-------------------------------------------------------------------------------
                          Kittelson & Associates, Inc.
                            Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      22   12    47     2    2     8    14  585    21    24  601     9
ApproachDel:      13.4             10.5              0.1              0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=81]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1348]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=12]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1348]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Kittelson & Associates, Inc.
Sutter Memorial - SAC, CA
Year 2012 Existing Traffic Conditions, Weekday PM Peak Hour

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 51st St/H St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Adj Vol.:	22	12	47	2	2	8	14	585	21	24	601	9

Major Street Volume: 1255
Minor Approach Volume: 81
Minor Approach Volume Threshold: 159

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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                          Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #8 Coloma Way/D St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   20   29     1     2   16    10     6   24    10     2   20     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             78
Minor Approach Volume:           40
Minor Approach Volume Threshold: 900
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

```
                                        expm
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #8 Coloma Way/D St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   20   29     1     2   16    10     6   24    10     2   20     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             78
Minor Approach Volume:           40
Minor Approach Volume Threshold: 900
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

```
                                        expm
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0
Adj Vol.:       2   17    22    19   13     3     0   11     3    28   18    12
ApproachDel:       3.2              3.8              0.0              1.0
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=41]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=147]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=35]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=147]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

```
                                        expm
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0
Adj Vol.:       2   17    22    19   13     3     0   11     3    28   18    12
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             72
Minor Approach Volume:           41
Minor Approach Volume Threshold: 923
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

```
                                        expm
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0
Adj Vol.:       2   17    22    19   13     3     0   11     3    28   18    12
ApproachDel:       3.2              3.8              0.0              1.0
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=41]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=147]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=35]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=147]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```



```
--------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
--------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #9 51st St/C St
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0
Adj Vol.:       2   17    22    19   13     3     0   11     3    28   18    12
```

```
                                        expm
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             72
Minor Approach Volume:           41
Minor Approach Volume Threshold: 923
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
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```

```
  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND♀
Existing PM                Tue Mar 26, 2013 10:31:47                Page 3-27
-------------------------------------------------------------------------------
                          Kittelson & Associates, Inc.
                            Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      53  333     0     0  347     6     1    0    46     0    0     0
ApproachDel:       0.4              0.0              4.2           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
                                      Page 27
```

```
                                        expm
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=47]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=786]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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```

```
  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND♀
Existing PM                Tue Mar 26, 2013 10:31:47                Page 3-28
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      53  333     0     0  347     6     1    0    46     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             739
Minor Approach Volume:           47
Minor Approach Volume Threshold: 300
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
```

expm

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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```
  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND♀
Existing PM                Tue Mar 26, 2013 10:31:47                Page 3-29
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      53  333     0     0  347     6     1    0    46     0    0     0
ApproachDel:       0.4              0.0              4.2           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=47]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=786]
   SUCCEED - Total volume greater than or equal to 650 for intersection
```

expm
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Kittelson & Associates, Inc.
Sutter Memorial - SAC, CA
Year 2012 Existing Traffic Conditions, Weekday PM Peak Hour

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #10 Elvas Ave/C St

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	1	0	0	0	0	0	1	0	0	0	1!	0	0	0	0	0	0
Adj Vol.:	53	333	0		0	347	6		1	0	46		0	0	0	

Major Street Volume: 739
Minor Approach Volume: 47
Minor Approach Volume Threshold: 300

SIGNAL WARRANT DISCLAIMER
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expm

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```
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Existing PM                Tue Mar 26, 2013 10:31:47                Page 3-31
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   55     9     2   27     0     0    0     0    32    0    11
ApproachDel:       0.0              0.2           xxxxxx              3.7
------------|---------------||---------------||---------------||---------------|
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=43]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=136]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

expm
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```
  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND♀
Existing PM                Tue Mar 26, 2013 10:31:47                Page 3-32
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   55     9     2   27     0     0    0     0    32    0    11
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             93
Minor Approach Volume:           43
Minor Approach Volume Threshold: 852
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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```

expm

```
  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND♀
Existing PM                Tue Mar 26, 2013 10:31:47                Page 3-33
-------------------------------------------------------------------------------
                          Kittelson & Associates, Inc.
                            Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   55     9     2   27     0     0    0     0    32    0    11
ApproachDel:       0.0              0.2           xxxxxx              3.7
------------|---------------||---------------||---------------||---------------|
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=43]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=136]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
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```

expm
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```
  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND♀
Existing PM                Tue Mar 26, 2013 10:31:47                Page 3-34
-------------------------------------------------------------------------------
                         Kittelson & Associates, Inc.
                           Sutter Memorial - SAC, CA
         Year 2012 Existing Traffic Conditions, Weekday PM  Peak Hour
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   55     9     2   27     0     0    0     0    32    0    11
------------|---------------||---------------||---------------||---------------|
Major Street Volume:              93
Minor Approach Volume:            43
Minor Approach Volume Threshold: 852
-------------------------------------------------------------------------------
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```

Scenario Report

Scenario:	Existing PP AM
Command:	Existing PP AM
Volume:	Ex WO Hosp AM
Geometry:	Existing PP
Impact Fee:	Default Impact Fee
Trip Generation:	Project AM
Trip Distribution:	Project
Paths:	Project
Routes:	Default Route
Configuration:	Default Configuration

examwohosp
Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 50th St/F St	No	No
# 2 51st St/F St	No / No	No / No
# 3 53rd St/F St	No	No
# 4 Elvas Ave/F St	No / No	No / No
# 5 50th St/H St	No / No	No / No
# 6 51st St/H St	No / No	No / No
# 8 Coloma Way/D St	No	No
# 9 51st St/C St	No / No	No / No
# 10 Elvas Ave/C St	No / No	No / No
# 11 Coloma Way/50th St/E St	No / No	No / No

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Existing PP AM Tue Mar 26, 2013 10:35:53 Page 3-1

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1 50th St/F St

Page 2

```
                                    examwohosp
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:    0    8     7    17   19     2     1   16     4     5   12     1
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             53
Minor Approach Volume:           21
Minor Approach Volume Threshold: 1003
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

```
                                    examwohosp
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:    0    8     7    17   19     2     1   16     4     5   12     1
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             53
Minor Approach Volume:           21
Minor Approach Volume Threshold: 1003
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

```
                                    examwohosp
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:       4    0    12     0    0     0     0   37     6     8   14     0
ApproachDel:       3.0           xxxxxx              0.0              0.8
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=17]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=81]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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```

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Existing PP AM             Tue Mar 26, 2013 10:35:54                 Page 3-4
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 51st St/F St
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:       4    0    12     0    0     0     0   37     6     8   14     0
```

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                                    examwohosp
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             65
Minor Approach Volume:           17
Minor Approach Volume Threshold: 950
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

```
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Existing PP AM             Tue Mar 26, 2013 10:35:54                 Page 3-5
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:       4    0    12     0    0     0     0   37     6     8   14     0
ApproachDel:       3.0           xxxxxx              0.0              0.8
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
                                     Page 6
```

```
                                    examwohosp
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=17]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=81]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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Existing PP AM             Tue Mar 26, 2013 10:35:54                 Page 3-6
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:       4    0    12     0    0     0     0   37     6     8   14     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             65
Minor Approach Volume:           17
Minor Approach Volume Threshold: 950
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
```

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This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP AM             Tue Mar 26, 2013 10:35:54                 Page 3-7
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #3 53rd St/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   10   18    12     0    2     1    14   14    22    18   18    26
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             112
Minor Approach Volume:           40
Minor Approach Volume Threshold: 803
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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```
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Existing PP AM             Tue Mar 26, 2013 10:35:54                 Page 3-8
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #3 53rd St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   10   18    12     0    2     1    14   14    22    18   18    26
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             112
Minor Approach Volume:           40
Minor Approach Volume Threshold: 803
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).
```

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Existing PP AM             Tue Mar 26, 2013 10:35:54                 Page 3-9
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      36  393     0     0  398    12     4    0    26     0    0     0
ApproachDel:       5.6              5.2              0.3           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.7]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=429]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=870]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.6]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=410]
```

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                                    examwohosp
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=870]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP AM             Tue Mar 26, 2013 10:35:54                Page 3-10
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #4 Elvas Ave/F St
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      36  393     0     0  398    12     4    0    26     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             30
Minor Approach Volume:           429
Minor Approach Volume Threshold: 1392
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
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Existing PP AM             Tue Mar 26, 2013 10:35:54                Page 3-11
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      36  393     0     0  398    12     4    0    26     0    0     0
ApproachDel:       5.6              5.2              0.3           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.7]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=429]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=870]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.6]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=410]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=870]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      36  393     0     0  398    12     4    0    26     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:              30
Minor Approach Volume:            429
Minor Approach Volume Threshold: 1392
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    0    11     8    6    24     4  474     6     8  579     6
ApproachDel:       7.2              8.8              0.0              0.0
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=14]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1129]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=37]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1129]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).
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Existing PP AM             Tue Mar 26, 2013 10:35:54                Page 3-14
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    0    11     8    6    24     4  474     6     8  579     6
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1077
Minor Approach Volume:           37
Minor Approach Volume Threshold: 200
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).
```

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Existing PP AM             Tue Mar 26, 2013 10:35:54                Page 3-15
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    0    11     8    6    24     4  474     6     8  579     6
ApproachDel:       7.2              8.8              0.0              0.0
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=14]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1129]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=37]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1129]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Existing PP AM             Tue Mar 26, 2013 10:35:54                Page 3-16
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    0    11     8    6    24     4  474     6     8  579     6
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1077
Minor Approach Volume:           37
Minor Approach Volume Threshold: 200
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP AM             Tue Mar 26, 2013 10:35:54                Page 3-17
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      20    6    30     8    7     7     4  467    16    28  573     3
ApproachDel:      10.6             12.3             0.0              0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=55]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1167]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=21]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1167]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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```

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Existing PP AM             Tue Mar 26, 2013 10:35:54                Page 3-18
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      20    6    30     8    7     7     4  467    16    28  573     3
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1091
Minor Approach Volume:           55
Minor Approach Volume Threshold: 196
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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Existing PP AM             Tue Mar 26, 2013 10:35:54                Page 3-19
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      20    6    30     8    7     7     4  467    16    28  573     3
ApproachDel:      10.6             12.3              0.0              0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=55]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1167]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=21]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1167]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 51st St/H St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Adj Vol.:	20	6	30	8	7	7	4	467	16	28	573	3

Major Street Volume: 1091
Minor Approach Volume: 55
Minor Approach Volume Threshold: 196

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #8 Coloma Way/D St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  0
Initial Vol:    3    6     1     2   13    11     2   23    21     1   10     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             57
Minor Approach Volume:           26
Minor Approach Volume Threshold: 983
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```


Peak Hour Volume Signal Warrant Report [Urban]
Intersection #8 Coloma Way/D St

```
                                    examwohosp
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  0
Initial Vol:    3    6     1     2   13    11     2   23    21     1   10     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             57
Minor Approach Volume:           26
Minor Approach Volume Threshold: 983
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  1  0  0  0    0  0  1! 0  0
Adj Vol.:       0    9    26     8   20     0     1   18     0     9    5     2
ApproachDel:       2.9              3.6              0.1              1.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=35]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=98]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=28]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=98]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  1  0  0  0    0  0  1! 0  0
Adj Vol.:       0    9    26     8   20     0     1   18     0     9    5     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             35
Minor Approach Volume:           35
Minor Approach Volume Threshold: 1114
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

```
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ApproachDel:       2.9              3.6              0.1              1.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=35]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=98]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=28]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=98]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #9 51st St/C St
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  1  0  0  0    0  0  1! 0  0
Adj Vol.:       0    9    26     8   20     0     1   18     0     9    5     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             35
Minor Approach Volume:           35
                                     Page 26
```

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Minor Approach Volume Threshold: 1114

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

****

Intersection #10 Elvas Ave/C St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	1 0	0	0	0	0 0	0	1 0	0	0 1!	0	0	0	0 0	0	0
Adj Vol.:	26	383		0	0	338		2	7		0	58	0		0	0
ApproachDel:		5.8				5.2				0.2				xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.7]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=409]

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   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=814]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.5]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=340]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=814]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP AM             Tue Mar 26, 2013 10:35:54                Page 3-28
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #10 Elvas Ave/C St
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      26  383     0     0  338     2     7    0    58     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             65
Minor Approach Volume:           409
Minor Approach Volume Threshold: 950
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

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Existing PP AM             Tue Mar 26, 2013 10:35:54                Page 3-29
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      26  383     0     0  338     2     7    0    58     0    0     0
ApproachDel:       5.8              5.2              0.2           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.7]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=409]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=814]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
```

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Signal Warrant Rule #1: [vehicle-hours=0.5]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=340]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=814]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP AM             Tue Mar 26, 2013 10:35:54                Page 3-30
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      26  383     0     0  338     2     7    0    58     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             65
Minor Approach Volume:           409
Minor Approach Volume Threshold: 950
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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the scope of this software, may yield different results.

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Existing PP AM             Tue Mar 26, 2013 10:35:54                Page 3-31
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0    8     2     1   42     0     0    0     0     9    0     3
ApproachDel:       3.2              3.5           xxxxxx              1.6
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=10]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=65]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=43]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=65]
   FAIL - Total volume less than 650 for intersection
```

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with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP AM Tue Mar 26, 2013 10:35:54 Page 3-32

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #11 Coloma Way/50th St/E St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Adj Vol.:	0	8	2	1	42	0	0	0	0	9	0	3

Major Street Volume: 12
Minor Approach Volume: 43
Minor Approach Volume Threshold: 1403

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP AM             Tue Mar 26, 2013 10:35:54                Page 3-33
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0    8     2     1   42     0     0    0     0     9    0     3
ApproachDel:       3.2              3.5           xxxxxx              1.6
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=10]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=65]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=43]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=65]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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```
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Existing PP AM             Tue Mar 26, 2013 10:35:54                Page 3-34
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0    8     2     1   42     0     0    0     0     9    0     3
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             12
Minor Approach Volume:           43
Minor Approach Volume Threshold: 1403
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Scenario Report

Scenario:	Existing PP PM
Command:	Existing PP PM
Volume:	Ex WO Hosp PM
Geometry:	Existing PP
Impact Fee:	Default Impact Fee
Trip Generation:	Project PM
Trip Distribution:	Project
Paths:	Project
Routes:	Default Route
Configuration:	Default Configuration

expmwohosp
Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 50th St/F St	No	No
# 2 51st St/F St	No / No	No / No
# 3 53rd St/F St	No	No
# 4 Elvas Ave/F St	No / No	No / No
# 5 50th St/H St	No / No	No / No
# 6 51st St/H St	No / No	No / No
# 8 Coloma Way/D St	No	No
# 9 51st St/C St	No / No	No / No
# 10 Elvas Ave/C St	No / No	No / No
# 11 Coloma Way/50th St/E St	No / No	No / No

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Existing PP PM Tue Mar 26, 2013 10:36:53 Page 3-1

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1 50th St/F St

Page 2

```
                                    expmwohosp
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1  0  0    0  0  1! 0  0
Initial Vol:    1   38     3    11   18     2     0   14     0     6   18    11
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             73
Minor Approach Volume:           35
Minor Approach Volume Threshold: 917
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

```
                                    expmwohosp
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1  0  0    0  0  1! 0  0
Initial Vol:    1   38     3    11   18     2     0   14     0     6   18    11
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             73
Minor Approach Volume:           35
Minor Approach Volume Threshold: 917
-------------------------------------------------------------------------------
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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

```
                                    expmwohosp
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:      12    0     8     0    0     0     0   29     2     6   24     0
ApproachDel:       3.4           xxxxxx              0.0              0.4
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=20]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=80]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```

```
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Existing PP PM             Tue Mar 26, 2013 10:36:53                 Page 3-4
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 51st St/F St
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:      12    0     8     0    0     0     0   29     2     6   24     0
```

```
                                    expmwohosp
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             61
Minor Approach Volume:           20
Minor Approach Volume Threshold: 968
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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```

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Existing PP PM             Tue Mar 26, 2013 10:36:53                 Page 3-5
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:       0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:      12    0     8     0    0     0     0   29     2     6   24     0
ApproachDel:       3.4           xxxxxx              0.0              0.4
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
                                      Page 6
```

```
                                        expmwohosp
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=20]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=80]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```

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Existing PP PM             Tue Mar 26, 2013 10:36:53                 Page 3-6
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:      12    0     8     0    0     0     0   29     2     6   24     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             61
Minor Approach Volume:           20
Minor Approach Volume Threshold: 968
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
```

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This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP PM             Tue Mar 26, 2013 10:36:53                 Page 3-7
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #3 53rd St/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   13    2    13     3    7     2     1   27     6    28   31     1
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             94
Minor Approach Volume:           28
Minor Approach Volume Threshold: 850
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

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```
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #3 53rd St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   13    2    13     3    7     2     1   27     6    28   31     1
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             94
Minor Approach Volume:           28
Minor Approach Volume Threshold: 850
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).
```

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Existing PP PM             Tue Mar 26, 2013 10:36:54                 Page 3-9
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      57  438     0     0  441     4     7    0    60     0    0     0
ApproachDel:       6.6              6.0              0.2           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.9]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=495]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1007]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.7]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=446]
```

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                                    expmwohosp
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1007]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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```

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Existing PP PM             Tue Mar 26, 2013 10:36:54                Page 3-10
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #4 Elvas Ave/F St
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      57  438     0     0  441     4     7    0    60     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             67
Minor Approach Volume:           495
Minor Approach Volume Threshold: 1145
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```

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Existing PP PM             Tue Mar 26, 2013 10:36:54                Page 3-11
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      57  438     0     0  441     4     7    0    60     0    0     0
ApproachDel:       6.6              6.0              0.2           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.9]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=495]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1007]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.7]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=446]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1007]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
```

expmwohosp

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Existing PP PM Tue Mar 26, 2013 10:36:54 Page 3-12

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #4 Elvas Ave/F St

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 1 1 0 0			0 0 1 1 0			0 0 1! 0 0			0 0 0 0 0		
Adj Vol.:	57	438	0	0	441	4	7	0	60	0	0	0

Major Street Volume: 67
Minor Approach Volume: 495
Minor Approach Volume Threshold: 1145

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP PM             Tue Mar 26, 2013 10:36:54                Page 3-13
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    3     7    11    1    10    23  574    11    11  525    24
ApproachDel:      10.7             12.1              0.1              0.1
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=13]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1203]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=22]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1203]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).
```

expmwohosp

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Existing PP PM Tue Mar 26, 2013 10:36:54 Page 3-14

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #5 50th St/H St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Adj Vol.:	3	3	7	11	1	10	23	574	11	11	525	24

Major Street Volume: 1168
Minor Approach Volume: 22
Minor Approach Volume Threshold: 178

SIGNAL WARRANT DISCLAIMER

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Existing PP PM             Tue Mar 26, 2013 10:36:54                Page 3-15
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    3     7    11    1    10    23  574    11    11  525    24
ApproachDel:      10.7             12.1              0.1              0.1
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=13]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1203]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=22]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1203]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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a traffic signal in the future.  Intersections that exceed this warrant
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jurisdiction.  Consideration of the other signal warrants, which is beyond
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```

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Existing PP PM             Tue Mar 26, 2013 10:36:54                Page 3-16
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    3     7    11    1    10    23  574    11    11  525    24
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1168
Minor Approach Volume:           22
Minor Approach Volume Threshold: 178
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP PM             Tue Mar 26, 2013 10:36:54                Page 3-17
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      22   12    47     1    2     1     4  562    21    24  525     9
ApproachDel:      11.5             12.8             0.0              0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=81]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1231]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=4]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1231]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
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Existing PP PM             Tue Mar 26, 2013 10:36:54                Page 3-18
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      22   12    47     1    2     1     4  562    21    24  525     9
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1146
Minor Approach Volume:           81
Minor Approach Volume Threshold: 183
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
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Existing PP PM             Tue Mar 26, 2013 10:36:54                Page 3-19
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      22   12    47     1    2     1     4  562    21    24  525     9
ApproachDel:      11.5             12.8              0.0              0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=81]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1231]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=4]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1231]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 51st St/H St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Adj Vol.:	22	12	47	1	2	1	4	562	21	24	525	9

Major Street Volume: 1146
Minor Approach Volume: 81
Minor Approach Volume Threshold: 183

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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```
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                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #8 Coloma Way/D St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   13   23     1     2   16    10     6   24    10     2   20     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             65
Minor Approach Volume:           40
Minor Approach Volume Threshold: 948
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```



```
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #8 Coloma Way/D St
```

```
                                    expmwohosp
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   13   23     1     2   16    10     6   24    10     2   20     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             65
Minor Approach Volume:           40
Minor Approach Volume Threshold: 948
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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                                    expmwohosp
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0
Adj Vol.:       2   17    22    19   13     3     0   11     3    28   18    12
ApproachDel:       3.2              3.8              0.0              1.0
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=41]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=147]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=35]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=147]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0
Adj Vol.:       2   17    22    19   13     3     0   11     3    28   18    12
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             72
Minor Approach Volume:           41
Minor Approach Volume Threshold: 923
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```



```
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0
Adj Vol.:       2   17    22    19   13     3     0   11     3    28   18    12
```

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                                    expmwohosp
ApproachDel:       3.2              3.8              0.0              1.0
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=41]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=147]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=35]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=147]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```



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--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #9 51st St/C St
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0
Adj Vol.:       2   17    22    19   13     3     0   11     3    28   18    12
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             72
Minor Approach Volume:           41
```

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Minor Approach Volume Threshold: 923

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

****

Intersection #10 Elvas Ave/C St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0 1	0 0	0		0 0	0 1	0		0 0	1! 0	0		0 0	0 0	0	
Adj Vol.:	53	366	0		0	382	7		1	0	42		0	0	0	
ApproachDel:	6.2				5.2				0.1				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.7]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=419]

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   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=851]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.6]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=388]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=851]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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```

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Existing PP PM              Tue Mar 26, 2013 10:36:54                Page 3-28
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #10 Elvas Ave/C St
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      53  366     0     0  382     7     1    0    42     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             43
Minor Approach Volume:           419
Minor Approach Volume Threshold: 1058
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP PM             Tue Mar 26, 2013 10:36:54                Page 3-29
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      53  366     0     0  382     7     1    0    42     0    0     0
ApproachDel:       6.2              5.2              0.1           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.7]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=419]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=851]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
```

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Signal Warrant Rule #1: [vehicle-hours=0.6]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=388]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=851]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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Existing PP PM             Tue Mar 26, 2013 10:36:54                Page 3-30
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      53  366     0     0  382     7     1    0    42     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             43
Minor Approach Volume:           419
Minor Approach Volume Threshold: 1058
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
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the scope of this software, may yield different results.

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Existing PP PM             Tue Mar 26, 2013 10:36:54                Page 3-31
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   56     3     2   30     0     0    0     0     2    0     1
ApproachDel:       3.4              3.4           xxxxxx              1.4
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=59]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=95]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=32]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=95]
   FAIL - Total volume less than 650 for intersection
```

expmwohosp

with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP PM Tue Mar 26, 2013 10:36:54 Page 3-32

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #11 Coloma Way/50th St/E St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Adj Vol.:	0	56	3	2	30	0	0	0	0	2	0	1

Major Street Volume: 3
Minor Approach Volume: 59
Minor Approach Volume Threshold: 1751

SIGNAL WARRANT DISCLAIMER
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expmwohosp

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Existing PP PM             Tue Mar 26, 2013 10:36:54                Page 3-33
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   56     3     2   30     0     0    0     0     2    0     1
ApproachDel:       3.4              3.4           xxxxxx              1.4
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=59]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=95]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=32]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=95]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   56     3     2   30     0     0    0     0     2    0     1
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             3
Minor Approach Volume:           59
Minor Approach Volume Threshold: 1751
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Scenario Report

Scenario:	Existing PP AM
Command:	Existing PP AM
Volume:	Ex WO Hosp AM
Geometry:	Existing PP
Impact Fee:	Default Impact Fee
Trip Generation:	Project AM
Trip Distribution:	Project
Paths:	Project
Routes:	Default Route
Configuration:	Default Configuration

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Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 50th St/F St	No	No
# 2 51st St/F St	No / No	No / No
# 3 53rd St/F St	No	No
# 4 Elvas Ave/F St	No / No	No / No
# 5 50th St/H St	No / No	No / No
# 6 51st St/H St	No / No	No / No
# 8 Coloma Way/D St	No	No
# 9 51st St/C St	No / No	No / No
# 10 Elvas Ave/C St	No / No	No / No
# 11 Coloma Way/50th St/E St	No / No	No / No
# 14 Middle Hospital Dwy/F St	No / No	No / No
# 15 53rd St/D St	No / No	No / No

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Existing PP AM Tue Mar 26, 2013 10:36:19 Page 3-1

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1 50th St/F St

Page 2

```
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*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:    0    8     7    17   19     2     1   16     4     5   12     1
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             53
Minor Approach Volume:           21
Minor Approach Volume Threshold: 1003
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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                                        exampp
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:    0   13    10    19   28     3     1   16     4    12   13     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             73
Minor Approach Volume:           27
Minor Approach Volume Threshold: 917
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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                                        exampp
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       4    0    12     0    0     0     0   37     6     8   14     0
ApproachDel:       3.0           xxxxxx              0.0              0.8
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=17]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=81]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```

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Existing PP AM             Tue Mar 26, 2013 10:36:19                 Page 3-4
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 51st St/F St
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       4    0    12     0    0     0     0   37     6     8   14     0
```

```
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------------|---------------||---------------||---------------||---------------|
Major Street Volume:             65
Minor Approach Volume:           17
Minor Approach Volume Threshold: 950
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```

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Existing PP AM             Tue Mar 26, 2013 10:36:19                 Page 3-5
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       4    8    14     6   17     6     3   40     6    12   17     2
ApproachDel:       3.3              3.6              0.1              0.9
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
                                        Page 6
```

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                                        exampp
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=26]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=134]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=28]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=134]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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Existing PP AM             Tue Mar 26, 2013 10:36:19                 Page 3-6
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       4    8    14     6   17     6     3   40     6    12   17     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             80
Minor Approach Volume:           28
Minor Approach Volume Threshold: 892
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
                                        Page 7
```

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This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP AM             Tue Mar 26, 2013 10:36:19                 Page 3-7
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #3 53rd St/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   10   18    12     0    2     1    14   14    22    18   18    26
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             112
Minor Approach Volume:           40
Minor Approach Volume Threshold: 803
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #3 53rd St/F St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0
Initial Vol:	12		25	12	10		17	3	15		21	27	18		21	31

Major Street Volume: 133
Minor Approach Volume: 49
Minor Approach Volume Threshold: 757

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP AM             Tue Mar 26, 2013 10:36:19                 Page 3-9
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      36  393     0     0  398    12     4    0    26     0    0     0
ApproachDel:       5.6              5.2              0.3           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.7]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=429]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=870]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.6]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=410]
```

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   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=870]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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Existing PP AM             Tue Mar 26, 2013 10:36:19                Page 3-10
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #4 Elvas Ave/F St
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      36  393     0     0  398    12     4    0    26     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             30
Minor Approach Volume:           429
Minor Approach Volume Threshold: 1392
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
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```

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Existing PP AM             Tue Mar 26, 2013 10:36:19                Page 3-11
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      45  394     0     0  400    12     4    0    43     0    0     0
ApproachDel:       5.8              5.4              0.2           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.7]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=439]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=899]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.6]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=413]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=899]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
```

exampp

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Existing PP AM             Tue Mar 26, 2013 10:36:19                Page 3-12
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      45  394     0     0  400    12     4    0    43     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:              47
Minor Approach Volume:            439
Minor Approach Volume Threshold: 1252
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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```

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Existing PP AM              Tue Mar 26, 2013 10:36:19                 Page 3-13
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    0    11     8    6    24     4  474     6     8  579     6
ApproachDel:       7.2              8.8              0.0              0.0
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=14]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1129]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=37]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1129]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).
```

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Existing PP AM             Tue Mar 26, 2013 10:36:20                Page 3-14
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    0    11     8    6    24     4  474     6     8  579     6
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1077
Minor Approach Volume:           37
Minor Approach Volume Threshold: 200
-------------------------------------------------------------------------------
```

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP AM             Tue Mar 26, 2013 10:36:20                Page 3-15
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    3    11    10   13    32     9  478     6     8  586     7
ApproachDel:       8.6             10.0              0.1              0.0
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=18]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1166]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=55]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1166]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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Existing PP AM             Tue Mar 26, 2013 10:36:20                Page 3-16
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    3    11    10   13    32     9  478     6     8  586     7
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1093
Minor Approach Volume:           55
Minor Approach Volume Threshold: 196
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Existing PP AM             Tue Mar 26, 2013 10:36:20                Page 3-17
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      20    6    30     8    7     7     4  467    16    28  573     3
ApproachDel:      10.6             12.3             0.0              0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=55]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1167]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=21]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1167]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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Existing PP AM             Tue Mar 26, 2013 10:36:20                Page 3-18
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      20    6    30     8    7     7     4  467    16    28  573     3
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1091
Minor Approach Volume:           55
Minor Approach Volume Threshold: 196
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
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Existing PP AM             Tue Mar 26, 2013 10:36:20                Page 3-19
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      20    9    30    17   14    11     7  471    16    29  577     7
ApproachDel:      11.5             14.2              0.1              0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=58]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1206]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=42]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1206]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 51st St/H St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Adj Vol.:	20	9	30	17	14	11	7	471	16	29	577	7

Major Street Volume: 1106
Minor Approach Volume: 58
Minor Approach Volume Threshold: 192

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #8 Coloma Way/D St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  0
Initial Vol:    3    6     1     2   13    11     2   23    21     1   10     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             57
Minor Approach Volume:           26
Minor Approach Volume Threshold: 983
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```



```
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #8 Coloma Way/D St
```

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*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  0
Initial Vol:    4    6     1     2   13    11     2   23    21     1   11     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             58
Minor Approach Volume:           26
Minor Approach Volume Threshold: 979
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  1  0  0  0    0  1  0  0  0    0  0  1! 0  0
Adj Vol.:       0    9    26     8   20     0     1   18     0     9    5     2
ApproachDel:       2.9              3.6              0.1              1.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=35]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=98]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=28]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=98]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  1  0  0  0    0  1  0  0  0    0  0  1! 0  0
Adj Vol.:       0    9    26     8   20     0     1   18     0     9    5     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             35
Minor Approach Volume:           35
Minor Approach Volume Threshold: 1114
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Existing PP AM             Tue Mar 26, 2013 10:36:20                Page 3-25
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #9 51st St/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  1  0  0  0    0  1  0  0  0    0  0  1! 0  0
Adj Vol.:       1   10    31     8   20     0     1   18     0    11    5     2
```

```
                                        exampp
ApproachDel:       3.0              3.6              0.1              1.3
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=42]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=106]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=28]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=106]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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Existing PP AM             Tue Mar 26, 2013 10:36:20                Page 3-26
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #9 51st St/C St
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  1  0  0  0    0  1  0  0  0    0  0  1! 0  0
Adj Vol.:       1   10    31     8   20     0     1   18     0    11    5     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             37
Minor Approach Volume:           42
                                     Page 26
```

exampp

Minor Approach Volume Threshold: 1098

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

****

Intersection #10 Elvas Ave/C St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0 1	0	0	0	0	0	0	1 0	0	0	1!	0 0	0	0	0	0 0
Adj Vol.:	26	383		0	0	338		2	7		0	58	0		0	0
ApproachDel:		5.8				5.2				0.2				xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.7]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=409]

```
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=814]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.5]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=340]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=814]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
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```

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--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #10 Elvas Ave/C St
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      26  383     0     0  338     2     7    0    58     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             65
Minor Approach Volume:           409
Minor Approach Volume Threshold: 950
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP AM             Tue Mar 26, 2013 10:36:20                Page 3-29
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      28  383     0     0  338     3     9    0    60     0    0     0
ApproachDel:       5.8              5.2              0.3           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.7]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=410]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=820]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
```

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Signal Warrant Rule #1: [vehicle-hours=0.5]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=341]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=820]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP AM             Tue Mar 26, 2013 10:36:20                Page 3-30
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      28  383     0     0  338     3     9    0    60     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             69
Minor Approach Volume:           410
Minor Approach Volume Threshold: 933
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP AM             Tue Mar 26, 2013 10:36:20                Page 3-31
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0    8     2     1   42     0     0    0     0     9    0     3
ApproachDel:       3.2              3.5           xxxxxx              1.6
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=10]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=65]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=43]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=65]
   FAIL - Total volume less than 650 for intersection
```

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          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Existing PP AM             Tue Mar 26, 2013 10:36:20                Page 3-32
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #11 Coloma Way/50th St/E St
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0    8     2     1   42     0     0    0     0     9    0     3
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             12
Minor Approach Volume:           43
Minor Approach Volume Threshold: 1403
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP AM             Tue Mar 26, 2013 10:36:20                Page 3-33
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0    8     9     1   42     0     0    0     0    22    0     4
ApproachDel:       3.0               3.6           xxxxxx              1.8
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=17]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=85]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=43]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=85]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

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Existing PP AM             Tue Mar 26, 2013 10:36:20                Page 3-34
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0    8     9     1   42     0     0    0     0    22    0     4
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             26
Minor Approach Volume:           43
Minor Approach Volume Threshold: 1193
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Existing PP AM             Tue Mar 26, 2013 10:36:20                Page 3-35
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #14 Middle Hospital Dwy/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
Adj Vol.:       0    0     0     0    0     0     0   59     0     0   25     0
ApproachDel:    xxxxxx           xxxxxx              0.0              0.0
------------|---------------||---------------||---------------||---------------|
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Existing PP AM             Tue Mar 26, 2013 10:36:20                Page 3-36
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #14 Middle Hospital Dwy/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
Adj Vol.:       0    0     0     0    0     0     0   59     0     0   25     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             84
Minor Approach Volume:           0
Minor Approach Volume Threshold: 880
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP AM             Tue Mar 26, 2013 10:36:20                Page 3-37
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #14 Middle Hospital Dwy/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
Adj Vol.:       0    0     0     6    0     6     3   67     0     0   31     2
ApproachDel:    xxxxxx              3.3              0.1              0.0
------------|---------------||---------------||---------------||---------------|
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=11]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=114]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Existing PP AM             Tue Mar 26, 2013 10:36:20                Page 3-38
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #14 Middle Hospital Dwy/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
Adj Vol.:       0    0     0     6    0     6     3   67     0     0   31     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             103
Minor Approach Volume:           11
Minor Approach Volume Threshold: 825
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP AM             Tue Mar 26, 2013 10:36:20                Page 3-39
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #15 53rd St/D St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  0  0    0  1  0  0  0
Adj Vol.:       0    0     0     0    0     0     0   32     0     0   26     0
ApproachDel:    xxxxxx           xxxxxx              0.0              0.0
------------|---------------||---------------||---------------||---------------|
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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Existing PP AM             Tue Mar 26, 2013 10:36:20                Page 3-40
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #15 53rd St/D St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  0  0    0  1  0  0  0
Adj Vol.:       0    0     0     0    0     0     0   32     0     0   26     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             58
Minor Approach Volume:           0
Minor Approach Volume Threshold: 979
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

```
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #15 53rd St/D St
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  0  0    0  1  0  0  0
Adj Vol.:       1    0     6     0    0     0     0   32     0     3   26     0
ApproachDel:       2.9           xxxxxx              0.0             0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=7]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=68]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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```

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                                        exampp
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #15 53rd St/D St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  0  0    0  1  0  0  0
Adj Vol.:       1    0     6     0    0     0     0   32     0     3   26     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             61
Minor Approach Volume:           7
Minor Approach Volume Threshold: 964
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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Scenario Report

Scenario:	Existing PP PM
Command:	Existing PP PM
Volume:	Ex WO Hosp PM
Geometry:	Existing PP
Impact Fee:	Default Impact Fee
Trip Generation:	Project PM
Trip Distribution:	Project
Paths:	Project
Routes:	Default Route
Configuration:	Default Configuration

expmpp
Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 50th St/F St	No	No
# 2 51st St/F St	No / No	No / No
# 3 53rd St/F St	No	No
# 4 Elvas Ave/F St	No / No	No / No
# 5 50th St/H St	No / No	No / No
# 6 51st St/H St	No / No	No / No
# 8 Coloma Way/D St	No	No
# 9 51st St/C St	No / No	No / No
# 10 Elvas Ave/C St	No / No	No / No
# 11 Coloma Way/50th St/E St	No / No	No / No
# 14 Middle Hospital Dwy/F St	No / No	No / No
# 15 53rd St/D St	No / No	No / No

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Existing PP PM Tue Mar 26, 2013 10:37:19 Page 3-1

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1 50th St/F St

Page 2

```
                                        expmpp
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  0    0  0  1! 0  0
Initial Vol:    1   38     3    11   18     2     0   14     0     6   18    11
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             73
Minor Approach Volume:           35
Minor Approach Volume Threshold: 917
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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                                        expmpp
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  0    0  0  1! 0  0
Initial Vol:    1   51    12    13   27     3     1   15     0    13   19    14
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             107
Minor Approach Volume:           46
Minor Approach Volume Threshold: 815
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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                                        expmpp
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      12    0     8     0    0     0     0   29     2     6   24     0
ApproachDel:       3.4           xxxxxx              0.0              0.4
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=20]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=80]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP PM             Tue Mar 26, 2013 10:37:19                 Page 3-4
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 51st St/F St
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      12    0     8     0    0     0     0   29     2     6   24     0
```

```
                                        expmpp
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             61
Minor Approach Volume:           20
Minor Approach Volume Threshold: 968
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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```

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Existing PP PM             Tue Mar 26, 2013 10:37:19                 Page 3-5
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      12   22    13     6   15     6     8   34     2    10   29     7
ApproachDel:       3.6              3.6              0.4              0.5
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
                                        Page 6
```

```
                                        expmpp
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=47]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=163]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=26]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=163]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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a traffic signal in the future.  Intersections that exceed this warrant
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      12   22    13     6   15     6     8   34     2    10   29     7
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             90
Minor Approach Volume:           47
Minor Approach Volume Threshold: 863
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
```

expmpp

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #3 53rd St/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   13    2    13     3    7     2     1   27     6    28   31     1
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             94
Minor Approach Volume:           28
Minor Approach Volume Threshold: 850
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #3 53rd St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   20   22    13    13   22     4     4   34    11    28   41    15
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             133
Minor Approach Volume:           55
Minor Approach Volume Threshold: 757
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```

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Existing PP PM             Tue Mar 26, 2013 10:37:19                 Page 3-9
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      57  438     0     0  441     4     7    0    60     0    0     0
ApproachDel:       6.6              6.0              0.2           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.9]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=495]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1007]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.7]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=446]
```

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   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1007]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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Existing PP PM             Tue Mar 26, 2013 10:37:19                Page 3-10
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      57  438     0     0  441     4     7    0    60     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             67
Minor Approach Volume:           495
Minor Approach Volume Threshold: 1145
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Existing PP PM             Tue Mar 26, 2013 10:37:19                Page 3-11
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      83  441     0     0  443     4     7    0    77     0    0     0
ApproachDel:       7.5              6.2              0.2           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.1]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=524]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1055]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.8]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=448]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1055]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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Existing PP PM             Tue Mar 26, 2013 10:37:19                Page 3-12
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      83  441     0     0  443     4     7    0    77     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:              84
Minor Approach Volume:            524
Minor Approach Volume Threshold: 1073
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
```

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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expmpp

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Existing PP PM             Tue Mar 26, 2013 10:37:19                Page 3-13
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    3     7    11    1    10    23  574    11    11  525    24
ApproachDel:      10.7             12.1              0.1              0.1
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=13]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1203]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=22]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1203]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).
```

expmpp

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Existing PP PM Tue Mar 26, 2013 10:37:19 Page 3-14

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #5 50th St/H St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Adj Vol.:	3	3	7	11	1	10	23	574	11	11	525	24

Major Street Volume: 1168
Minor Approach Volume: 22
Minor Approach Volume Threshold: 178

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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expmpp

```
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Existing PP PM             Tue Mar 26, 2013 10:37:19                Page 3-15
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3   13     7    13    8    18    34  584    11    11  532    27
ApproachDel:      13.7             13.0              0.2              0.1
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=23]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1261]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=39]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1261]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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```

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Existing PP PM             Tue Mar 26, 2013 10:37:19                Page 3-16
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3   13     7    13    8    18    34  584    11    11  532    27
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1199
Minor Approach Volume:           39
Minor Approach Volume Threshold: 171
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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```

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Existing PP PM             Tue Mar 26, 2013 10:37:19                Page 3-17
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      22   12    47     1    2     1     4  562    21    24  525     9
ApproachDel:      11.5             12.8             0.0              0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=81]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1231]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=4]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1231]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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```

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Existing PP PM             Tue Mar 26, 2013 10:37:19                Page 3-18
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      22   12    47     1    2     1     4  562    21    24  525     9
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1146
Minor Approach Volume:           81
Minor Approach Volume Threshold: 183
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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```

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Existing PP PM             Tue Mar 26, 2013 10:37:19                Page 3-19
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      22   22    48     9    9     6    11  568    21    25  531    19
ApproachDel:      13.3             15.4              0.1              0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=92]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1291]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=23]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1291]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 51st St/H St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Adj Vol.:	22	22	48	9	9	6	11	568	21	25	531	19

Major Street Volume: 1175
Minor Approach Volume: 92
Minor Approach Volume Threshold: 176

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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```
                                        expmpp
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #8 Coloma Way/D St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   13   23     1     2   16    10     6   24    10     2   20     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             65
Minor Approach Volume:           40
Minor Approach Volume Threshold: 948
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```



```
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #8 Coloma Way/D St
```

```
                                        expmpp
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   14   23     1     2   16    10     6   25    11     2   21     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             67
Minor Approach Volume:           38
Minor Approach Volume Threshold: 940
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

```
                                        expmpp
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0
Adj Vol.:       2   17    22    19   13     3     0   11     3    28   18    12
ApproachDel:       3.2              3.8              0.0              1.0
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=41]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=147]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=35]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=147]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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                                        expmpp
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0
Adj Vol.:       2   17    22    19   13     3     0   11     3    28   18    12
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             72
Minor Approach Volume:           41
Minor Approach Volume Threshold: 923
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```



```
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #9 51st St/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0
Adj Vol.:       3   18    26    19   14     3     0   11     4    33   18    12
```

```
                                        expmpp
ApproachDel:       3.2              3.9              0.0              1.1
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=47]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=162]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=36]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=162]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Existing PP PM             Tue Mar 26, 2013 10:37:19                Page 3-26
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #9 51st St/C St
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0
Adj Vol.:       3   18    26    19   14     3     0   11     4    33   18    12
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             78
Minor Approach Volume:           47
                                     Page 26
```

expmpp

Minor Approach Volume Threshold: 900

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

****

Intersection #10 Elvas Ave/C St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0 1	0 0	0		0 0	0 1	0		0 0	1! 0	0		0 0	0 0	0	
Adj Vol.:	53	366	0		0	382	7		1	0	42		0	0	0	
ApproachDel:	6.2				5.2				0.1				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.7]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=419]

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                                        expmpp
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=851]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.6]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=388]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=851]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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Existing PP PM              Tue Mar 26, 2013 10:37:19                Page 3-28
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #10 Elvas Ave/C St
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      53  366     0     0  382     7     1    0    42     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             43
Minor Approach Volume:           419
Minor Approach Volume Threshold: 1058
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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```
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Existing PP PM             Tue Mar 26, 2013 10:37:19                Page 3-29
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      56  366     0     0  382     9     3    0    44     0    0     0
ApproachDel:       6.4              5.3              0.1           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.7]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=422]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=860]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
```

```
                                        expmpp
Signal Warrant Rule #1: [vehicle-hours=0.6]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=391]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=860]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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```

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Existing PP PM             Tue Mar 26, 2013 10:37:19                Page 3-30
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      56  366     0     0  382     9     3    0    44     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             47
Minor Approach Volume:           422
Minor Approach Volume Threshold: 1033
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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```

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Existing PP PM             Tue Mar 26, 2013 10:37:19                Page 3-31
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   56     3     2   30     0     0    0     0     2    0     1
ApproachDel:       3.4              3.4           xxxxxx              1.4
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=59]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=95]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=32]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=95]
   FAIL - Total volume less than 650 for intersection
```

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                                        expmpp
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #11 Coloma Way/50th St/E St
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   56     3     2   30     0     0    0     0     2    0     1
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             3
Minor Approach Volume:           59
Minor Approach Volume Threshold: 1751
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Existing PP PM             Tue Mar 26, 2013 10:37:19                Page 3-33
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   56    22     3   30     0     0    0     0    15    0     2
ApproachDel:       3.4               3.5           xxxxxx              1.9
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=78]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=129]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=33]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=129]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

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Existing PP PM             Tue Mar 26, 2013 10:37:19                Page 3-34
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   56    22     3   30     0     0    0     0    15    0     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             17
Minor Approach Volume:           78
Minor Approach Volume Threshold: 1300
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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Existing PP PM             Tue Mar 26, 2013 10:37:19                Page 3-35
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #14 Middle Hospital Dwy/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
Adj Vol.:       0    0     0     0    0     0     0   36     0     0   40     0
ApproachDel:    xxxxxx           xxxxxx              0.0              0.0
------------|---------------||---------------||---------------||---------------|
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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```

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Existing PP PM             Tue Mar 26, 2013 10:37:19                Page 3-36
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #14 Middle Hospital Dwy/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
Adj Vol.:       0    0     0     0    0     0     0   36     0     0   40     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             76
Minor Approach Volume:           0
Minor Approach Volume Threshold: 907
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```

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Existing PP PM             Tue Mar 26, 2013 10:37:19                Page 3-37
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #14 Middle Hospital Dwy/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
Adj Vol.:       0    0     0     6    0     6     8   46     0     0   52     7
ApproachDel:    xxxxxx              3.4              0.3              0.0
------------|---------------||---------------||---------------||---------------|
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=11]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=124]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```

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Existing PP PM             Tue Mar 26, 2013 10:37:19                Page 3-38
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #14 Middle Hospital Dwy/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
Adj Vol.:       0    0     0     6    0     6     8   46     0     0   52     7
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             113
Minor Approach Volume:           11
Minor Approach Volume Threshold: 802
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```

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Existing PP PM             Tue Mar 26, 2013 10:37:20                Page 3-39
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #15 53rd St/D St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:       0    0     0     0    0     0     0   37     0     0   40     0
ApproachDel:    xxxxxx           xxxxxx              0.0              0.0
------------|---------------||---------------||---------------||---------------|
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```

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Existing PP PM             Tue Mar 26, 2013 10:37:20                Page 3-40
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #15 53rd St/D St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:       0    0     0     0    0     0     0   37     0     0   40     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             77
Minor Approach Volume:           0
Minor Approach Volume Threshold: 903
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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jurisdiction.  Consideration of the other signal warrants, which is beyond
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```

Peak Hour Delay Signal Warrant Report

Intersection #15 53rd St/D St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Adj Vol.:	1	0	6	0	0	0	0	37	1	8	40	0
ApproachDel:	2.9			xxxxxx			0.0			0.4		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=7]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=92]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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                                        expmpp
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #15 53rd St/D St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:       1    0     6     0    0     0     0   37     1     8   40     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             86
Minor Approach Volume:           7
Minor Approach Volume Threshold: 875
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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```

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Scenario Report

Scenario:	Opening AM + Hosp
Command:	Opening AM + Hosp
Volume:	NT AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	None
Trip Distribution:	None
Paths:	None
Routes:	Default Route
Configuration:	Default Configuration

ntnpam
Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 50th St/F St	No	No
# 2 51st St/F St	No / No	No / No
# 3 53rd St/F St	No	No
# 4 Elvas Ave/F St	No / No	No / No
# 5 50th St/H St	No / No	No / No
# 6 51st St/H St	No / No	No / No
# 8 Coloma Way/D St	No	No
# 9 51st St/C St	No / No	No / No
# 10 Elvas Ave/C St	No / No	No / No
# 11 Coloma Way/50th St/E St	No / No	No / No

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Opening AM + Hosp Tue Mar 26, 2013 10:33:01 Page 3-1

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1 50th St/F St

Page 2

ntnpam

```
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:    0   28    21    26   28     2     3   53     4     8   36    16
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             120
Minor Approach Volume:           56
Minor Approach Volume Threshold: 785
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
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```



```
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #1 50th St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
```

```
                                        ntnpam
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:    0   28    21    26   28     2     3   53     4     8   36    16
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             120
Minor Approach Volume:           56
Minor Approach Volume Threshold: 785
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

```
                                        ntnpam
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:       6    0    46     0    0     0     0   96     7    15   55     0
ApproachDel:       3.2           xxxxxx              0.0              0.5
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=52]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=225]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 51st St/F St
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:       6    0    46     0    0     0     0   96     7    15   55     0
```

```
                                        ntnpam
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             173
Minor Approach Volume:           52
Minor Approach Volume Threshold: 687
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:       6    0    46     0    0     0     0   96     7    15   55     0
ApproachDel:       3.2           xxxxxx              0.0              0.5
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
                                        Page 6
```

ntnpam

```
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=52]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=225]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:       6    0    46     0    0     0     0   96     7    15   55     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             173
Minor Approach Volume:           52
Minor Approach Volume Threshold: 687
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
```

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This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #3 53rd St/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   29   74    12    18   46     5    58   52    24    18   42   105
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             299
Minor Approach Volume:           115
Minor Approach Volume Threshold: 541
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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```
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #3 53rd St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   29   74    12    18   46     5    58   52    24    18   42   105
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             299
Minor Approach Volume:           115
Minor Approach Volume Threshold: 541
-------------------------------------------------------------------------------
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:     152  387     0     0  362    11     7    0    86     0    0     0
ApproachDel:       1.1              0.0              4.5           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=92]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1004]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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```

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:     152  387     0     0  362    11     7    0    86     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             912
Minor Approach Volume:           92
Minor Approach Volume Threshold: 317
-------------------------------------------------------------------------------
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:     152  387     0     0  362    11     7    0    86     0    0     0
ApproachDel:       1.1              0.0              4.5           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=92]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1004]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:     152  387     0     0  362    11     7    0    86     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:              912
Minor Approach Volume:            92
Minor Approach Volume Threshold: 317
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
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```

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    0    11    10    7    34    37  559     6     8  633    10
ApproachDel:       9.0             10.9              0.3              0.0
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=14]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1318]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=51]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1318]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).
```

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    0    11    10    7    34    37  559     6     8  633    10
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1253
Minor Approach Volume:           51
Minor Approach Volume Threshold: 159
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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Opening AM + Hosp          Tue Mar 26, 2013 10:33:01                Page 3-15
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    0    11    10    7    34    37  559     6     8  633    10
ApproachDel:       9.0             10.9              0.3              0.0
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=14]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1318]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=51]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1318]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    0    11    10    7    34    37  559     6     8  633    10
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1253
Minor Approach Volume:           51
Minor Approach Volume Threshold: 159
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      20   11    30     8    8    14    34  527    16    28  624     4
ApproachDel:      14.4             13.4              0.3              0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=61]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1323]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=30]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1323]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      20   11    30     8    8    14    34  527    16    28  624     4
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1233
Minor Approach Volume:           61
Minor Approach Volume Threshold: 164
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      20   11    30     8    8    14    34  527    16    28  624     4
ApproachDel:      14.4             13.4              0.3              0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=61]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1323]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=30]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1323]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 51st St/H St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Adj Vol.:	20	11	30	8	8	14	34	527	16	28	624	4

Major Street Volume: 1233
Minor Approach Volume: 61
Minor Approach Volume Threshold: 164

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #8 Coloma Way/D St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Stop Sign					Stop Sign				
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	1	0	0	0
Initial Vol:	9		13		1	2		20		11	2		13		29	1		20		0

Major Street Volume: 65
Minor Approach Volume: 33
Minor Approach Volume Threshold: 948

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #8 Coloma Way/D St

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```
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  0
Initial Vol:    9   13     1     2   20    11     2   13    29     1   20     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             65
Minor Approach Volume:           33
Minor Approach Volume Threshold: 948
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```



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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #9 51st St/C St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
```

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Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  1  0  0  0    0  0  1! 0  0
Adj Vol.:       0    9    26     8   20     0     1   18     0    20    5     2
ApproachDel:       2.9              3.7              0.1              1.6
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=35]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=109]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=28]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=109]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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                                        ntnpam
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  1  0  0  0    0  0  1! 0  0
Adj Vol.:       0    9    26     8   20     0     1   18     0    20    5     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             46
Minor Approach Volume:           35
Minor Approach Volume Threshold: 1041
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```



```
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  1  0  0  0    0  0  1! 0  0
Adj Vol.:       0    9    26     8   20     0     1   18     0    20    5     2
```

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ApproachDel:       2.9              3.7              0.1              1.6
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=35]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=109]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=28]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=109]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
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--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #9 51st St/C St
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  1  0  0  0    0  0  1! 0  0
Adj Vol.:       0    9    26     8   20     0     1   18     0    20    5     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             46
Minor Approach Volume:           35
                                     Page 26
```

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Minor Approach Volume Threshold: 1041

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

****

Intersection #10 Elvas Ave/C St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0 1	0 0	0		0 0	0 1	0		0 0	1! 0	0		0 0	0 0	0	
Adj Vol.:	37	368	0		0	307	2		7	0	64		0	0	0	
ApproachDel:	0.3				0.0				4.6				xxxxxx			

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=70]

```
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=785]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      37  368     0     0  307     2     7    0    64     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             714
Minor Approach Volume:           70
Minor Approach Volume Threshold: 309
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      37  368     0     0  307     2     7    0    64     0    0     0
ApproachDel:       0.3              0.0              4.6           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=70]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=785]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      37  368     0     0  307     2     7    0    64     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             714
Minor Approach Volume:           70
Minor Approach Volume Threshold: 309
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
```

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```
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Opening AM + Hosp          Tue Mar 26, 2013 10:33:01                Page 3-31
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   12    34    18   38     0     0    0     0    29    0    12
ApproachDel:       0.0              0.7           xxxxxx              3.6
------------|---------------||---------------||---------------||---------------|
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=41]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=142]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).
```

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Opening AM + Hosp          Tue Mar 26, 2013 10:33:01                Page 3-32
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   12    34    18   38     0     0    0     0    29    0    12
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             102
Minor Approach Volume:           41
Minor Approach Volume Threshold: 829
-------------------------------------------------------------------------------
```

SIGNAL WARRANT DISCLAIMER

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```
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   12    34    18   38     0     0    0     0    29    0    12
ApproachDel:       0.0               0.7           xxxxxx               3.6
------------|---------------||---------------||---------------||---------------|
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=41]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=142]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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```

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```
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   12    34    18   38     0     0    0     0    29    0    12
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             102
Minor Approach Volume:           41
Minor Approach Volume Threshold: 829
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Scenario Report

Scenario:	Opening PM + Hosp
Command:	Opening PM + Hosp
Volume:	NT PM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	None
Trip Distribution:	None
Paths:	None
Routes:	Default Route
Configuration:	Default Configuration

ntnppm
Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 50th St/F St	No	No
# 2 51st St/F St	No / No	No / No
# 3 53rd St/F St	No	No
# 4 Elvas Ave/F St	No / No	No / No
# 5 50th St/H St	No / No	No / No
# 6 51st St/H St	No / No	No / No
# 8 Coloma Way/D St	No	No
# 9 51st St/C St	No / No	No / No
# 10 Elvas Ave/C St	No / No	No / No
# 11 Coloma Way/50th St/E St	No / No	No / No

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Opening PM + Hosp Tue Mar 26, 2013 10:35:09 Page 3-1

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1 50th St/F St

Page 2

ntnppm

```
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1  0  0    0  0  1! 0  0
Initial Vol:    1   42     5    19   37     2     0   36     0    14   65    17
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             132
Minor Approach Volume:           58
Minor Approach Volume Threshold: 759
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```



```
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #1 50th St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
```

```
                                        ntnppm
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1  0  0    0  0  1! 0  0
Initial Vol:    1   42     5    19   37     2     0   36     0    14   65    17
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             132
Minor Approach Volume:           58
Minor Approach Volume Threshold: 759
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
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signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

```
                                        ntnppm
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  1    0  0  0  1  0    0  1  0  0  0
Adj Vol.:      15    0    18     0    0    14     0   60     3    12   69     0
ApproachDel:       3.6              2.8              0.0              0.3
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=33]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=191]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=14]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=191]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```



```
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 51st St/F St
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  1    0  0  0  1  0    0  1  0  0  0
Adj Vol.:      15    0    18     0    0    14     0   60     3    12   69     0
```

```
                                        ntnppm
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             144
Minor Approach Volume:           33
Minor Approach Volume Threshold: 736
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:       0  0  1! 0  0    0  0  0  0  1    0  0  0  1  0    0  1  0  0  0
Adj Vol.:      15    0    18     0    0    14     0   60     3    12   69     0
ApproachDel:       3.6              2.8              0.0              0.3
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
                                        Page 6
```

```
                                        ntnppm
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=33]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=191]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=14]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=191]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  1    0  0  0  1  0    0  1  0  0  0
Adj Vol.:      15    0    18     0    0    14     0   60     3    12   69     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             144
Minor Approach Volume:           33
Minor Approach Volume Threshold: 736
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
```

ntnppm

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #3 53rd St/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   25   40    13    54  103    25    14   38    31    28   40    13
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             260
Minor Approach Volume:           83
Minor Approach Volume Threshold: 579
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

ntnppm

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #3 53rd St/F St

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Stop Sign					Stop Sign				
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	25		40		13	54		103		25	14		38		31	28		40		13

Major Street Volume: 260
Minor Approach Volume: 83
Minor Approach Volume Threshold: 579

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Opening PM + Hosp          Tue Mar 26, 2013 10:35:09                 Page 3-9
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      80  398     0     0  401     4     7    0   134     0    0     0
ApproachDel:       0.6              0.0              4.4           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=141]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1024]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

ntnppm

are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Opening PM + Hosp          Tue Mar 26, 2013 10:35:09                Page 3-10
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      80  398     0     0  401     4     7    0   134     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             883
Minor Approach Volume:           141
Minor Approach Volume Threshold: 328
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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a traffic signal in the future.  Intersections that exceed this warrant
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```

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Opening PM + Hosp          Tue Mar 26, 2013 10:35:09                Page 3-11
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      80  398     0     0  401     4     7    0   134     0    0     0
ApproachDel:       0.6              0.0              4.4           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=141]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1024]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
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the scope of this software, may yield different results.

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      80  398     0     0  401     4     7    0   134     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:              883
Minor Approach Volume:            141
Minor Approach Volume Threshold: 328
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
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Opening PM + Hosp          Tue Mar 26, 2013 10:35:09                Page 3-13
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    3     7    18    4    30    28  630    11    11  673    26
ApproachDel:      14.0             15.1              0.2              0.1
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=13]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1443]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=52]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1443]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).
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The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Opening PM + Hosp          Tue Mar 26, 2013 10:35:09                Page 3-14
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    3     7    18    4    30    28  630    11    11  673    26
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1379
Minor Approach Volume:           52
Minor Approach Volume Threshold: 134
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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Opening PM + Hosp          Tue Mar 26, 2013 10:35:09                Page 3-15
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    3     7    18    4    30    28  630    11    11  673    26
ApproachDel:      14.0             15.1              0.2              0.1
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=13]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1443]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=52]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1443]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
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a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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Opening PM + Hosp          Tue Mar 26, 2013 10:35:09                Page 3-16
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    3     7    18    4    30    28  630    11    11  673    26
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1379
Minor Approach Volume:           52
Minor Approach Volume Threshold: 134
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      22   12    47     2    2    50    14  615    21    24  631     9
ApproachDel:      15.6              7.3              0.1              0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.4]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=81]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1450]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=54]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1450]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      22   12    47     2    2    50    14  615    21    24  631     9
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1315
Minor Approach Volume:           81
Minor Approach Volume Threshold: 146
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      22   12    47     2    2    50    14  615    21    24  631     9
ApproachDel:      15.6              7.3              0.1              0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.4]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=81]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1450]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=54]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1450]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 51st St/H St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Adj Vol.:	22	12	47	2	2	50	14	615	21	24	631	9

Major Street Volume: 1315
Minor Approach Volume: 81
Minor Approach Volume Threshold: 146

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #8 Coloma Way/D St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0
Initial Vol:	20	29		1	2	16		10	6	24		10	2	30		2

Major Street Volume: 78
Minor Approach Volume: 40
Minor Approach Volume Threshold: 900

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #8 Coloma Way/D St

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```
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   20   29     1     2   16    10     6   24    10     2   30     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             78
Minor Approach Volume:           40
Minor Approach Volume Threshold: 900
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```



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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #9 51st St/C St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
```

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                                        ntnppm
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0
Adj Vol.:       2   17    22    19   13     3     0   11     3    28   28    12
ApproachDel:       3.2              3.9              0.0              0.9
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=41]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=157]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=35]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=157]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0
Adj Vol.:       2   17    22    19   13     3     0   11     3    28   28    12
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             82
Minor Approach Volume:           41
Minor Approach Volume Threshold: 888
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```



```
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0
Adj Vol.:       2   17    22    19   13     3     0   11     3    28   28    12
```

```
                                        ntnppm
ApproachDel:       3.2              3.9              0.0              0.9
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=41]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=157]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=35]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=157]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```



```
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #9 51st St/C St
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0
Adj Vol.:       2   17    22    19   13     3     0   11     3    28   28    12
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             82
Minor Approach Volume:           41
```

ntnppm

Minor Approach Volume Threshold: 888

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

****

Intersection #10 Elvas Ave/C St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 1 0 0 0			0 0 0 1 0			0 0 1! 0 0			0 0 0 0 0		
Adj Vol.:	64	333	0	0	347	6	1	0	46	0	0	0
ApproachDel:	0.5			0.0			4.3			xxxxxx		

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=47]

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```
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=797]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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```

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Opening PM + Hosp          Tue Mar 26, 2013 10:35:09                Page 3-28
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      64  333     0     0  347     6     1    0    46     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             750
Minor Approach Volume:           47
Minor Approach Volume Threshold: 296
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      64  333     0     0  347     6     1    0    46     0    0     0
ApproachDel:       0.5              0.0              4.3           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=47]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=797]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
```

ntnppm

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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```
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      64  333     0     0  347     6     1    0    46     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             750
Minor Approach Volume:           47
Minor Approach Volume Threshold: 296
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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```

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   55     9     2   27     0     0    0     0    32    0    11
ApproachDel:       0.0              0.2           xxxxxx              3.7
------------|---------------||---------------||---------------||---------------|
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=43]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=136]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).
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Opening PM + Hosp          Tue Mar 26, 2013 10:35:09                Page 3-32
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   55     9     2   27     0     0    0     0    32    0    11
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             93
Minor Approach Volume:           43
Minor Approach Volume Threshold: 852
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Opening PM + Hosp          Tue Mar 26, 2013 10:35:09                Page 3-33
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   55     9     2   27     0     0    0     0    32    0    11
ApproachDel:       0.0               0.2           xxxxxx               3.7
------------|---------------||---------------||---------------||---------------|
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=43]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=136]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
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```

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Opening PM + Hosp          Tue Mar 26, 2013 10:35:09                Page 3-34
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   55     9     2   27     0     0    0     0    32    0    11
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             93
Minor Approach Volume:           43
Minor Approach Volume Threshold: 852
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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```

Scenario Report

Scenario:	Opening AM - Hosp + Proj
Command:	Opening AM - Hosp + Proj
Volume:	NT WO Hosp AM
Geometry:	Existing PP
Impact Fee:	Default Impact Fee
Trip Generation:	Project AM
Trip Distribution:	Project
Paths:	Project
Routes:	Default Route
Configuration:	Default Configuration

---

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Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 50th St/F St	No	No
# 2 51st St/F St	No / No	No / No
# 3 53rd St/F St	No	No
# 4 Elvas Ave/F St	No / No	No / No
# 5 50th St/H St	No / No	No / No
# 6 51st St/H St	No / No	No / No
# 8 Coloma Way/D St	No	No
# 9 51st St/C St	No / No	No / No
# 10 Elvas Ave/C St	No / No	No / No
# 11 Coloma Way/50th St/E St	No / No	No / No
# 14 Middle Hospital Dwy/F St	No / No	No / No
# 15 53rd St/D St	No / No	No / No

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Opening AM - Hosp + Proj Tue Mar 26, 2013 10:37:51 Page 3-1

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1 50th St/F St

Page 2

```
                                        ntppam
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:    0    8     7    17   19     2     1   21     4     5   27     1
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             59
Minor Approach Volume:           38
Minor Approach Volume Threshold: 974
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

```
                                        ntppam
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:    0   13    10    19   28     3     1   21     4    12   28     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             73
Minor Approach Volume:           42
Minor Approach Volume Threshold: 917
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

```
                                        ntppam
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       4    0    12     0    0     0     0   42     6     8   29     0
ApproachDel:       3.1           xxxxxx              0.0              0.5
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=17]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=101]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Opening AM - Hosp + Proj   Tue Mar 26, 2013 10:37:52                 Page 3-4
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 51st St/F St
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       4    0    12     0    0     0     0   42     6     8   29     0
```

```
                                        ntppam
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             85
Minor Approach Volume:           17
Minor Approach Volume Threshold: 878
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       4    8    14     6   17     6     3   45     6    12   32     2
ApproachDel:       3.3              3.7              0.1              0.6
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
                                        Page 6
```

ntppam

```
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=26]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=154]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=28]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=154]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       4    8    14     6   17     6     3   45     6    12   32     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             100
Minor Approach Volume:           28
Minor Approach Volume Threshold: 832
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
```

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This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #3 53rd St/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   25   18    12     0    2     1    14   19    22    18   18    26
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             117
Minor Approach Volume:           55
Minor Approach Volume Threshold: 792
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

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Opening AM - Hosp + Proj   Tue Mar 26, 2013 10:37:52                 Page 3-8
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #3 53rd St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   27   25    12    10   17     3    15   26    27    18   21    31
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             138
Minor Approach Volume:           64
Minor Approach Volume Threshold: 748
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).
```

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Opening AM - Hosp + Proj   Tue Mar 26, 2013 10:37:52                  Page 3-9
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      36  426     0     0  398    12     7    0    29     0    0     0
ApproachDel:       5.8              5.3              0.4           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.8]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=462]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=908]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.6]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=410]
```

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   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=908]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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```

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Opening AM - Hosp + Proj   Tue Mar 26, 2013 10:37:52                Page 3-10
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #4 Elvas Ave/F St
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      36  426     0     0  398    12     7    0    29     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             36
Minor Approach Volume:           462
Minor Approach Volume Threshold: 1342
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Opening AM - Hosp + Proj   Tue Mar 26, 2013 10:37:52                Page 3-11
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      45  427     0     0  400    12     7    0    46     0    0     0
ApproachDel:       6.1              5.5              0.3           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.8]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=472]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=937]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.6]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=413]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=937]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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Opening AM - Hosp + Proj Tue Mar 26, 2013 10:37:52 Page 3-12

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #4 Elvas Ave/F St

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 1 1	0 0		0 0 1	1 0		0 0 1!	0 0		0 0 0	0 0	
Adj Vol.:	45	427	0	0	400	12	7	0	46	0	0	0

Major Street Volume: 53
Minor Approach Volume: 472
Minor Approach Volume Threshold: 1219

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Opening AM - Hosp + Proj   Tue Mar 26, 2013 10:37:52                Page 3-13
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    0    11     8    6    24     4  489     6     8  599     6
ApproachDel:       7.5              9.2              0.0              0.0
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=14]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1164]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=37]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1164]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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Opening AM - Hosp + Proj   Tue Mar 26, 2013 10:37:52                Page 3-14
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    0    11     8    6    24     4  489     6     8  599     6
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1112
Minor Approach Volume:           37
Minor Approach Volume Threshold: 191
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    3    11    10   13    32     9  493     6     8  606     7
ApproachDel:       9.0             10.4              0.1              0.0
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=18]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1201]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=55]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1201]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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Opening AM - Hosp + Proj   Tue Mar 26, 2013 10:37:52                Page 3-16
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    3    11    10   13    32     9  493     6     8  606     7
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1129
Minor Approach Volume:           55
Minor Approach Volume Threshold: 187
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Opening AM - Hosp + Proj   Tue Mar 26, 2013 10:37:52                Page 3-17
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      20    6    30     8    7     7     4  482    16    28  593     3
ApproachDel:      11.1             12.9              0.0              0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=55]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1202]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=21]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1202]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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Opening AM - Hosp + Proj   Tue Mar 26, 2013 10:37:52                Page 3-18
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      20    6    30     8    7     7     4  482    16    28  593     3
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1126
Minor Approach Volume:           55
Minor Approach Volume Threshold: 188
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Opening AM - Hosp + Proj   Tue Mar 26, 2013 10:37:52                Page 3-19
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      20    9    30    17   14    11     7  486    16    29  597     7
ApproachDel:      12.1             15.0              0.1              0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=58]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1241]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=42]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1241]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 51st St/H St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Adj Vol.:	20	9	30	17	14	11	7	486	16	29	597	7

Major Street Volume: 1141
Minor Approach Volume: 58
Minor Approach Volume Threshold: 184

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #8 Coloma Way/D St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Stop Sign					Stop Sign				
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	1	0	0	0
Initial Vol:	3		6		1	2		13		11	2		13		21	1		20		0

Major Street Volume: 57
Minor Approach Volume: 26
Minor Approach Volume Threshold: 983

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #8 Coloma Way/D St

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```
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  0
Initial Vol:    4    6     1     2   13    11     2   13    21     1   21     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             58
Minor Approach Volume:           26
Minor Approach Volume Threshold: 979
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```



```
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #9 51st St/C St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
```

```
                                        ntppam
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  1  0  0  0    0  1  0  0  0    0  0  1! 0  0
Adj Vol.:       0    9    26     8   20     0     1   18     0    20    5     2
ApproachDel:       2.9              3.7              0.1              1.6
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=35]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=109]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=28]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=109]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

```
                                        ntppam
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  1  0  0  0    0  1  0  0  0    0  0  1! 0  0
Adj Vol.:       0    9    26     8   20     0     1   18     0    20    5     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             46
Minor Approach Volume:           35
Minor Approach Volume Threshold: 1041
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
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```

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Opening AM - Hosp + Proj   Tue Mar 26, 2013 10:37:52                Page 3-25
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #9 51st St/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  1  0  0  0    0  1  0  0  0    0  0  1! 0  0
Adj Vol.:       1   10    31     8   20     0     1   18     0    22    5     2
```

```
                                        ntppam
ApproachDel:       3.0              3.7              0.1              1.6
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=42]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=117]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=28]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=117]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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```

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #9 51st St/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  1  0  0  0    0  1  0  0  0    0  0  1! 0  0
Adj Vol.:       1   10    31     8   20     0     1   18     0    22    5     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             48
Minor Approach Volume:           42
                                     Page 26
```

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Minor Approach Volume Threshold: 1029

SIGNAL WARRANT DISCLAIMER

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Opening AM - Hosp + Proj Tue Mar 26, 2013 10:37:52 Page 3-27

Peak Hour Delay Signal Warrant Report

****

Intersection #10 Elvas Ave/C St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0 1	0 0	0	0	0 0	0 1	0	0	0 0	1! 0	0	0	0 0	0 0	0	0
Adj Vol.:	37	405	0	0	338	2	7	0	58	0	0	0	0	0	0	0
ApproachDel:	6.2				5.2				0.2				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.8]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=442]

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   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=847]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.5]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=340]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=847]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Opening AM - Hosp + Proj   Tue Mar 26, 2013 10:37:52                Page 3-28
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #10 Elvas Ave/C St
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      37  405     0     0  338     2     7    0    58     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             65
Minor Approach Volume:           442
Minor Approach Volume Threshold: 950
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      39  405     0     0  338     3     9    0    60     0    0     0
ApproachDel:       6.3              5.2              0.3           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.8]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=443]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=853]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
```

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Signal Warrant Rule #1: [vehicle-hours=0.5]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=341]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=853]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      39  405     0     0  338     3     9    0    60     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             69
Minor Approach Volume:           443
Minor Approach Volume Threshold: 933
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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the scope of this software, may yield different results.

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0    8     2     1   42     0     0    0     0     9    0     3
ApproachDel:       3.2              3.5           xxxxxx              1.6
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=10]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=65]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=43]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=65]
   FAIL - Total volume less than 650 for intersection
```

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with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Opening AM - Hosp + Proj Tue Mar 26, 2013 10:37:52 Page 3-32

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #11 Coloma Way/50th St/E St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Adj Vol.:	0	8	2	1	42	0	0	0	0	9	0	3

Major Street Volume: 12
Minor Approach Volume: 43
Minor Approach Volume Threshold: 1403

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0    8     9     1   42     0     0    0     0    22    0     4
ApproachDel:       3.0               3.6           xxxxxx              1.8
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=17]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=85]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=43]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=85]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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a traffic signal in the future.  Intersections that exceed this warrant
```

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Opening AM - Hosp + Proj   Tue Mar 26, 2013 10:37:52                Page 3-34
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0    8     9     1   42     0     0    0     0    22    0     4
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             26
Minor Approach Volume:           43
Minor Approach Volume Threshold: 1193
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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Opening AM - Hosp + Proj   Tue Mar 26, 2013 10:37:52                Page 3-35
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #14 Middle Hospital Dwy/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
Adj Vol.:       0    0     0     0    0     0     0   59     0     0   25     0
ApproachDel:    xxxxxx           xxxxxx              0.0              0.0
------------|---------------||---------------||---------------||---------------|
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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Opening AM - Hosp + Proj   Tue Mar 26, 2013 10:37:52                Page 3-36
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #14 Middle Hospital Dwy/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
Adj Vol.:       0    0     0     0    0     0     0   59     0     0   25     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             84
Minor Approach Volume:           0
Minor Approach Volume Threshold: 880
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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Opening AM - Hosp + Proj   Tue Mar 26, 2013 10:37:52                Page 3-37
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #14 Middle Hospital Dwy/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
Adj Vol.:       0    0     0     6    0     6     3   67     0     0   31     2
ApproachDel:    xxxxxx              3.3              0.1              0.0
------------|---------------||---------------||---------------||---------------|
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=11]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=114]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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a traffic signal in the future.  Intersections that exceed this warrant
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```

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #14 Middle Hospital Dwy/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
Adj Vol.:       0    0     0     6    0     6     3   67     0     0   31     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             103
Minor Approach Volume:           11
Minor Approach Volume Threshold: 825
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #15 53rd St/D St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  0  0    0  1  0  0  0
Adj Vol.:       0    0     0     0    0     0     0   32     0     0   36     0
ApproachDel:    xxxxxx           xxxxxx              0.0              0.0
------------|---------------||---------------||---------------||---------------|
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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Opening AM - Hosp + Proj   Tue Mar 26, 2013 10:37:52                Page 3-40
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #15 53rd St/D St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  0  0    0  1  0  0  0
Adj Vol.:       0    0     0     0    0     0     0   32     0     0   36     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             68
Minor Approach Volume:           0
Minor Approach Volume Threshold: 936
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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```

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--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #15 53rd St/D St
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  0  0    0  1  0  0  0
Adj Vol.:       1    0     6     0    0     0     0   32     0     3   36     0
ApproachDel:       2.9           xxxxxx              0.0             0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=7]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=78]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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```

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                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #15 53rd St/D St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  0  0    0  1  0  0  0
Adj Vol.:       1    0     6     0    0     0     0   32     0     3   36     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             71
Minor Approach Volume:           7
Minor Approach Volume Threshold: 924
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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a traffic signal in the future.  Intersections that exceed this warrant
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Scenario Report

Scenario:	Opening PM - Hosp + Proj
Command:	Opening PM - Hosp + Proj
Volume:	NT WO Hosp PM
Geometry:	Existing PP
Impact Fee:	Default Impact Fee
Trip Generation:	Project PM
Trip Distribution:	Project
Paths:	Project
Routes:	Default Route
Configuration:	Default Configuration

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ntpppm

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 50th St/F St	No	No
# 2 51st St/F St	No / No	No / No
# 3 53rd St/F St	No	No
# 4 Elvas Ave/F St	No / No	No / No
# 5 50th St/H St	No / No	No / No
# 6 51st St/H St	No / No	No / No
# 8 Coloma Way/D St	No	No
# 9 51st St/C St	No / No	No / No
# 10 Elvas Ave/C St	No / No	No / No
# 11 Coloma Way/50th St/E St	No / No	No / No
# 14 Middle Hospital Dwy/F St	No / No	No / No
# 15 53rd St/D St	No / No	No / No

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Opening PM - Hosp + Proj Tue Mar 26, 2013 11:13:50 Page 3-1

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1 50th St/F St

Page 2

ntpppm

```
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  0    0  0  1! 0  0
Initial Vol:    1   38     3    11   18     2     0   24     0     6   44    11
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             85
Minor Approach Volume:           42
Minor Approach Volume Threshold: 877
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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```



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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #1 50th St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
```

```
                                        ntpppm
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  0    0  0  1! 0  0
Initial Vol:    1   51    12    13   27     3     1   25     0    13   45    14
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             107
Minor Approach Volume:           72
Minor Approach Volume Threshold: 815
-------------------------------------------------------------------------------
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```

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                                        ntpppm
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      15    0     8     0    0    14     0   39     2     6   34     0
ApproachDel:       3.6              2.7              0.0              0.3
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=23]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=118]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=14]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=118]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
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```



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--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 51st St/F St
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      15    0     8     0    0    14     0   39     2     6   34     0
```

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                                        ntpppm
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             81
Minor Approach Volume:           23
Minor Approach Volume Threshold: 891
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      15   22    13     6   15    20     8   44     2    10   39     7
ApproachDel:       3.8              3.4              0.3              0.4
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
                                        Page 6
```

```
                                        ntpppm
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=51]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=201]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=41]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=201]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #2 51st St/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      15   22    13     6   15    20     8   44     2    10   39     7
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             110
Minor Approach Volume:           51
Minor Approach Volume Threshold: 809
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
```

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #3 53rd St/F St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1! 0	0		0 0 1! 0	0		0 0 1! 0	0		0 0 1! 0	0	
Initial Vol:	23	2	13	3	7	2	1	27	16	28	31	1

Major Street Volume: 104

Minor Approach Volume: 38

Minor Approach Volume Threshold: 823

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant

Page 8

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are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Opening PM - Hosp + Proj Tue Mar 26, 2013 11:13:50 Page 3-8

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #3 53rd St/F St

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Stop Sign					Stop Sign				
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	30		22		13	13		22		4	4		34		21	28		41		15

Major Street Volume: 143
Minor Approach Volume: 65
Minor Approach Volume Threshold: 738

SIGNAL WARRANT DISCLAIMER

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      57  438     0     0  441     4     7    0    60     0    0     0
ApproachDel:       6.6              6.0              0.2           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.9]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=495]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1007]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.7]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=446]
```

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   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1007]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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Opening PM - Hosp + Proj   Tue Mar 26, 2013 11:13:50                Page 3-10
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #4 Elvas Ave/F St
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      57  438     0     0  441     4     7    0    60     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             67
Minor Approach Volume:           495
Minor Approach Volume Threshold: 1145
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      83  441     0     0  443     4     7    0    77     0    0     0
ApproachDel:       7.5              6.2              0.2           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.1]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=524]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1055]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.8]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=448]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1055]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
```

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This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #4 Elvas Ave/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  1  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      83  441     0     0  443     4     7    0    77     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:              84
Minor Approach Volume:            524
Minor Approach Volume Threshold: 1073
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Opening PM - Hosp + Proj   Tue Mar 26, 2013 11:13:50                Page 3-13
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    3     7    11    1    10    23  604    11    11  593    24
ApproachDel:      11.9             13.8              0.2              0.1
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=13]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1301]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=22]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1301]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3    3     7    11    1    10    23  604    11    11  593    24
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1266
Minor Approach Volume:           22
Minor Approach Volume Threshold: 156
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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a traffic signal in the future.  Intersections that exceed this warrant
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Opening PM - Hosp + Proj   Tue Mar 26, 2013 11:13:50                Page 3-15
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3   13     7    13    8    18    34  614    11    11  600    27
ApproachDel:      15.6             15.0              0.2              0.1
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=23]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1359]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=39]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1359]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #5 50th St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:       3   13     7    13    8    18    34  614    11    11  600    27
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1297
Minor Approach Volume:           39
Minor Approach Volume Threshold: 150
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      22   12    47     1    2    43     4  592    21    24  555     9
ApproachDel:      13.1              6.2              0.0              0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=81]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1333]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=46]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1333]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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Opening PM - Hosp + Proj   Tue Mar 26, 2013 11:13:50                Page 3-18
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      22   12    47     1    2    43     4  592    21    24  555     9
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1206
Minor Approach Volume:           81
Minor Approach Volume Threshold: 170
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #6 51st St/H St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Adj Vol.:      22   22    48     9    9    47    11  598    21    25  561    19
ApproachDel:      15.4             10.2              0.1              0.2
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.4]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=92]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1393]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=65]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1393]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 51st St/H St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Adj Vol.:	22	22	48	9	9	47	11	598	21	25	561	19

Major Street Volume: 1235
Minor Approach Volume: 92
Minor Approach Volume Threshold: 163

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #8 Coloma Way/D St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0
Initial Vol:	13	23		1	2	16		10	6	24		10	2	30		2

Major Street Volume: 74
Minor Approach Volume: 37
Minor Approach Volume Threshold: 914

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #8 Coloma Way/D St

ntpppm

```
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:   14   23     1     2   16    10     6   25    11     2   31     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             77
Minor Approach Volume:           38
Minor Approach Volume Threshold: 903
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```



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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #9 51st St/C St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
```

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                                        ntpppm
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0
Adj Vol.:       2   17    22    19   13     3     0   11     3    28   28    12
ApproachDel:       3.2              3.9              0.0              0.9
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=41]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=157]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=35]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=157]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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a traffic signal in the future.  Intersections that exceed this warrant
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```

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                                        ntpppm
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0
Adj Vol.:       2   17    22    19   13     3     0   11     3    28   28    12
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             82
Minor Approach Volume:           41
Minor Approach Volume Threshold: 888
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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Opening PM - Hosp + Proj   Tue Mar 26, 2013 11:13:50                Page 3-25
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #9 51st St/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0
Adj Vol.:       3   18    26    19   14     3     0   11     4    33   28    12
```

```
                                        ntpppm
ApproachDel:       3.3              3.9              0.0              1.0
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=47]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=172]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=36]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=172]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```

```
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--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #9 51st St/C St
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0    0  0  1! 0  0
Adj Vol.:       3   18    26    19   14     3     0   11     4    33   28    12
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             88
Minor Approach Volume:           47
```

ntpppm

Minor Approach Volume Threshold: 868

SIGNAL WARRANT DISCLAIMER

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Opening PM - Hosp + Proj Tue Mar 26, 2013 11:13:50 Page 3-27

Peak Hour Delay Signal Warrant Report

****

Intersection #10 Elvas Ave/C St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	1	0	0	0	0	0	1	0	0	0	1!	0	0	0	0
Adj Vol.:	64	366	0		0	382	7		1	0	42		0	0	0	
ApproachDel:	6.5				5.2				0.1				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.8]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=430]

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```
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=862]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.6]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=388]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=862]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```

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--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #10 Elvas Ave/C St
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      64  366     0     0  382     7     1    0    42     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             43
Minor Approach Volume:           430
Minor Approach Volume Threshold: 1058
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
```

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Opening PM - Hosp + Proj   Tue Mar 26, 2013 11:13:50                Page 3-29
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #10 Elvas Ave/C St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      67  366     0     0  382     9     3    0    44     0    0     0
ApproachDel:       6.7              5.3              0.1           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.8]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=433]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=871]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
```

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                                        ntpppm
Signal Warrant Rule #1: [vehicle-hours=0.6]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=391]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=871]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
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Opening PM - Hosp + Proj   Tue Mar 26, 2013 11:13:50                Page 3-30
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #10 Elvas Ave/C St
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Adj Vol.:      67  366     0     0  382     9     3    0    44     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             47
Minor Approach Volume:           433
Minor Approach Volume Threshold: 1033
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Opening PM - Hosp + Proj   Tue Mar 26, 2013 11:13:50                Page 3-31
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   56     3     2   30     0     0    0     0     2    0     1
ApproachDel:       3.4              3.4           xxxxxx              1.4
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=59]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=95]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=32]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=95]
   FAIL - Total volume less than 650 for intersection
```

ntpppm

with less than four approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #11 Coloma Way/50th St/E St

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Adj Vol.:	0	56	3	2	30	0	0	0	0	2	0	1

Major Street Volume: 3
Minor Approach Volume: 59
Minor Approach Volume Threshold: 1751

SIGNAL WARRANT DISCLAIMER
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   56    22     3   30     0     0    0     0    15    0     2
ApproachDel:       3.4               3.5           xxxxxx              1.9
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=78]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=129]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=33]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=129]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
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```

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #11 Coloma Way/50th St/E St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Adj Vol.:       0   56    22     3   30     0     0    0     0    15    0     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             17
Minor Approach Volume:           78
Minor Approach Volume Threshold: 1300
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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a traffic signal in the future.  Intersections that exceed this warrant
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Opening PM - Hosp + Proj   Tue Mar 26, 2013 11:13:50                Page 3-35
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #14 Middle Hospital Dwy/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
Adj Vol.:       0    0     0     0    0     0     0   36     0     0   40     0
ApproachDel:    xxxxxx           xxxxxx              0.0              0.0
------------|---------------||---------------||---------------||---------------|
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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Opening PM - Hosp + Proj   Tue Mar 26, 2013 11:13:50                Page 3-36
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #14 Middle Hospital Dwy/F St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
Adj Vol.:       0    0     0     0    0     0     0   36     0     0   40     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             76
Minor Approach Volume:           0
Minor Approach Volume Threshold: 907
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Opening PM - Hosp + Proj   Tue Mar 26, 2013 11:13:50                Page 3-37
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #14 Middle Hospital Dwy/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
Adj Vol.:       0    0     0     6    0     6     8   46     0     0   52     7
ApproachDel:    xxxxxx              3.4              0.3              0.0
------------|---------------||---------------||---------------||---------------|
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=11]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=124]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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Opening PM - Hosp + Proj   Tue Mar 26, 2013 11:13:50                Page 3-38
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #14 Middle Hospital Dwy/F St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
Adj Vol.:       0    0     0     6    0     6     8   46     0     0   52     7
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             113
Minor Approach Volume:           11
Minor Approach Volume Threshold: 802
-------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

ntpppm

```
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Opening PM - Hosp + Proj   Tue Mar 26, 2013 11:13:51                Page 3-39
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #15 53rd St/D St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:       0    0     0     0    0     0     0   37     0     0   40     0
ApproachDel:    xxxxxx           xxxxxx              0.0              0.0
------------|---------------||---------------||---------------||---------------|
-------------------------------------------------------------------------------
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```

ntpppm

```
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Opening PM - Hosp + Proj   Tue Mar 26, 2013 11:13:51                Page 3-40
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #15 53rd St/D St
*******************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:       0    0     0     0    0     0     0   37     0     0   40     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             77
Minor Approach Volume:           0
Minor Approach Volume Threshold: 903
-------------------------------------------------------------------------------
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signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
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the scope of this software, may yield different results.
```

```
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                     Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #15 53rd St/D St
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:       1    0     6     0    0     0     0   37     1     8   40     0
ApproachDel:       2.9           xxxxxx              0.0              0.4
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=7]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=92]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

```
                                        ntpppm
                 Peak Hour Volume Signal Warrant Report [Urban]
*******************************************************************************
Intersection #15 53rd St/D St
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  0  1  0    0  1  0  0  0
Adj Vol.:       1    0     6     0    0     0     0   37     1     8   40     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             86
Minor Approach Volume:           7
Minor Approach Volume Threshold: 875
-------------------------------------------------------------------------------
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